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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
545              550              555              560
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
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Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
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<210> 3955

<211> 522

<212> DNA

<213> Homo sapiens

<400> 3955

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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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 35 40 45
 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
 50 55 60
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
 65 70 75 80
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
 85 90 95
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
 100 105 110
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
 115 120 125
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
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<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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<210> 3958

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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          35           40           45
Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
          50           55           60
Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
          65           70           75           80
Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
          85           90           95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
          100          105          110
Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
          115          120          125
Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
          130          135          140
Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
          145          150          155          160
Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
          165          170          175
Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
          180          185          190
Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
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Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
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Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
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Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
          245          250          255
Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
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Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
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Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
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Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
          305          310          315          320
Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
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Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
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Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
          355          360          365
Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
          370          375          380
His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

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385          390          395          400
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Thr Lys Thr Pro Ser Ser Pro Val
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<210> 3959
<211> 752
<212> DNA
<213> Homo sapiens

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<210> 3960
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<212> PRT
<213> Homo sapiens

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          20          25          30
Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
          35          40          45
Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

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50		55		60
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Lys Pro Leu Arg Thr Ala Cys His His Gln Leu Ser Phe Leu				
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<210> 3961

<211> 2505

<212> DNA

<213> Homo sapiens

<400> 3961

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 1980
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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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Gly	Asn	Gly	Thr	Pro	Cys	Ser	Leu	Lys	Gln	Asn	Arg	Pro	Arg	Ser	Ser
			20					25				30			
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser


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Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro
  50              55              60
Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
  65              70              75              80
Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
      85              90              95
Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
      100              105              110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
      115              120              125
Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
      130              135              140
Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
  145              150              155              160
Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
      165              170              175
Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
      180              185              190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
      195              200              205
His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
      210              215              220
Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
  225              230              235              240
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
      245              250              255
Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
      260              265              270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
      275              280              285
Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu
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Pro Asn
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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atagataaac atagcctaaa tattggtgat tacaatcgaa cggtcgggaa aggccctggt
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 540
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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

Met	Ala	Met	Ala	Ser	Phe	Leu	Leu	Phe	Tyr	Phe	Thr	Lys	Gly	Met	Met
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Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
			35					40					45		
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

```

      50              55              60
Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr
65              70              75              80
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser
      85              90              95
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe
      100              105              110
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro
      115              120              125
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro
      130              135              140
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala
145              150              155              160
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala
      165              170              175
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln
      180              185              190
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser
      195              200              205
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu
      210              215              220
Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn
225              230              235              240
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His
      245              250              255
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr
      260              265              270
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe
      275              280              285
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser
      290              295              300
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser
305              310              315              320
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala
      325              330              335
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp
      340              345              350
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly
      355              360              365
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn
      370              375              380
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn
385              390              395              400
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn
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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

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<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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		35					40					45				
Ala	Gln	Arg	Ala	Leu	Tyr	Arg	Asp	Val	Met	Arg	Glu	Thr	Phe	Gly	His	
	50					55					60					
Leu	Gly	Ala	Leu	Gly	Glu	Ala	Gly	Pro	Ser	Gly	Arg	Asp	Pro	Gln	Ser	
65					70					75				80		
Val	Gly	Phe	Ser	Val	Pro	Lys	Pro	Ala	Phe	Ile	Ser	Trp	Val	Glu	Gly	
				85					90					95		
Glu	Val	Glu	Ala	Trp	Ser	Pro	Glu	Ala	Gln	Asp	Pro	Asp	Gly	Glu	Ser	
			100					105					110			
Ser	Ala	Ala	Phe	Ser	Arg	Gly	Gln	Gly	Gln	Glu	Ala	Gly	Ser	Arg	Asp	
		115				120						125				
Gly	Asn	Glu	Glu	Lys	Glu	Arg	Leu	Lys	Lys	Cys	Pro	Lys	Gln	Lys	Glu	
	130					135						140				
Val	Ala	His	Glu	Val	Ala	Val	Lys	Glu	Trp	Trp	Pro	Ser	Val	Ala	Cys	
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Pro	Glu	Phe	Cys	Asn	Pro	Arg	Gln	Ser	Pro	Met	Asn	Pro	Trp	Leu	Lys	
				165					170					175		
Asp	Thr	Leu	Thr	Arg	Arg	Leu	Pro	His	Ser	Cys	Pro	Asp	Cys	Gly	Arg	
			180					185						190		
Asn	Phe	Ser	Tyr	Pro	Ser	Leu	Leu	Ala	Ser	His	Gln	Arg	Val	His	Ser	
		195				200						205				
Gly	Glu	Arg	Pro	Phe	Ser	Cys	Gly	Gln	Cys	Gln	Ala	Arg	Phe	Ser	Gln	
	210					215					220					
Arg	Arg	Tyr	Leu	Leu	Gln	His	Gln	Phe	Ile	His	Thr	Gly	Glu	Lys	Pro	
225					230					235					240	
Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Arg	Gln	Arg	Gly	Ser	Leu	
				245					250					255		
Ala	Ile	His	Arg	Arg	Ala	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ala	Cys	Ser	
			260					265						270		
Asp	Cys	Lys	Ser	Arg	Phe	Thr	Tyr	Pro	Tyr	Leu	Leu	Ala	Ile	His	Gln	
		275				280						285				
Arg	Lys	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ser	Cys	Pro	Asp	Cys	Ser	Leu	
	290					295					300					
Arg	Phe	Ala	Tyr	Thr	Ser	Leu	Leu	Ala	Ile	His	Arg	Arg	Ile	His	Thr	
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				325					330					335		
Ser	Ser	Leu	Leu	Leu	Ser	His	Arg	Arg	Ile	His	Ser	Asp	Ser	Arg	Pro	
			340					345						350		
Phe	Pro	Cys	Val	Glu	Cys	Gly	Lys	Gly	Phe	Lys	Arg	Lys	Thr	Ala	Leu	
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 Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala
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 Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
 515 520 525
 Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
 530 535 540
 Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
 545 550 555 560
 Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
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 Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
 580 585 590
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 625 630 635 640
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 Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
 660 665 670
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 675 680 685
 His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
 690 695 700
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 705 710 715 720
 Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
 725 730 735
 Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly
 740 745 750
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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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180

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<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

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			20					25				30			
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
		35				40					45				
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
	50					55					60				
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
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Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
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Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
		100						105					110		
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
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<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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240
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540
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720
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780
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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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20           25           30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35           40           45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50           55           60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65           70           75           80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

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 120
 ctggggaacg ggtaatcaga gaaacctca ctcatagggt ggtgcccttt atgcagagac
 180
 ttaaaggaag gagggaggtc ccctgacaga gagaatggta agtgcaaagg tcctgggtgg
 240
 gcttggttg aggaagagca aggccagtgt ggctggaaca gaggtagtga aggggagaga
 300
 gttgtaagca atgagcttag acaggaaatg gggctctggtt cacatgggaa atggtaggac
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 120
 tgctccacct acttgcagtc cagatattac agggcccctg agatcatcct tggtttacca
 180
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 240
 tggcggttat atccaggagc ttcggagtat gatcagattc ggtatatttc acaaaacacag
 300
 ggtttgctg ctgaatattt attaagcgcc gggacaaaga caactagggt tttcaaccgt
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 420
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<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

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Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
		35				40						45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala	
	50				55				60						
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65				70					75					80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
				85					90					95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

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      100      105      110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu
      115      120      125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys
      130      135      140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala
145      150      155      160
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu
      165      170      175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr
      180      185      190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro
      195      200      205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val
      210      215      220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met
225      230      235      240
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala
      245      250      255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr
      260      265      270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Ala Gln
      275      280      285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro
      290      295      300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala
305      310      315      320
Leu Gln Ala Ser Pro Phe Thr Arg
      325

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<210> 3975
 <211> 593
 <212> DNA
 <213> Homo sapiens

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<400> 3975
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<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
	50					55				60					
His	Pro	Thr	Ile	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro	
65				70					75				80		
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85				90						95	
Leu	Ala	Cys	Gln	Thr											
				100											

<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120
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240
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300
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420
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480
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2340

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 2640
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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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Phe	Thr	Trp	Asn	Lys	Arg	Ser	Gly	Leu	Gln	Val	Ser	Gln	Asp	Phe	Pro
			20				25					30			
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40					45			
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55					60				
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70					75				80	
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
				85					90				95		
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
			100				105					110			
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
	115						120					125			
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
	130					135					140				
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145				150					155					160	
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165					170					175		
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
			180				185						190		
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
	195					200						205			
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
	210				215					220					
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225					230					235				240	
Leu	Arg	Leu	Ile	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln	
			245					250					255		
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
			260				265					270			
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

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Gln Asn Val Asn Leu Thr Arg Lys Gly Ser Ile Leu Lys Asn Gln Glu
 290              295              300
Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe
305              310              315              320
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val
              325              330              335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly
              340              345              350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu
              355              360              365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro
              370              375              380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala
385              390              395              400
His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu
              405              410              415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa
              420              425              430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser
              435              440              445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His
              450              455              460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys
465              470              475              480
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp
              485              490              495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala
              500              505              510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu
              515              520              525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu
              530              535              540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala
545              550              555              560
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu
              565              570              575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser
              580              585              590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly
              595              600              605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser
              610              615              620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser
625              630              635              640
Asp Leu Ala Gln Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr
              645              650              655
Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

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<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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Arg Lys Arg Tyr Leu Thr Ile Gly Leu Ser Ser Val Lys Arg Lys Lys		95
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<212> DNA
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Lys Gln Ile Gly Tyr Leu Phe Ile Ser Val Leu Val Asn Ser Asn Ser
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Glu Leu Ile Arg Leu Ile Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser
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Gly Ser Arg Glu Met Ala Glu Ala Phe Ala Gly Glu Ile Pro Lys Val
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<211> 484

<212> PRT

<213> Homo sapiens

<400> 3984

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Arg	Leu	Glu	Val	Ala	Glu	Val	Asn	Gly	Arg	Leu	Ala	Glu	Leu	Gly	Leu
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His	Leu	Lys	Glu	Glu	Lys	Cys	Gln	Trp	Ser	Lys	Glu	Arg	Ala	Gly	Leu
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Leu	Gln	Ser	Val	Glu	Ala	Glu	Lys	Asp	Lys	Ile	Leu	Lys	Leu	Ser	Ala
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Gln	Val	Phe	Lys	Thr	Glu	Leu	Ala	Arg	Glu	Lys	Asp	Ser	Ser	Leu	Val
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Gln	Leu	Ser	Glu	Ser	Lys	Arg	Glu	Leu	Thr	Glu	Leu	Arg	Ser	Ala	Leu
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Arg	Val	Leu	Gln	Lys	Glu	Lys	Glu	Gln	Leu	Gln	Glu	Glu	Lys	Gln	Glu
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Leu	Leu	Glu	Tyr	Met	Arg	Lys	Leu	Glu	Ala	Arg	Leu	Glu	Lys	Val	Ala
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Asp	Glu	Lys	Trp	Asn	Glu	Asp	Ala	Thr	Thr	Glu	Asp	Glu	Glu	Ala	Ala
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Val	Gly	Leu	Ser	Cys	Pro	Ala	Ala	Leu	Thr	Asp	Ser	Glu	Asp	Glu	Ser
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Pro	Glu	Asp	Met	Arg	Leu	Pro	Pro	Tyr	Gly	Leu	Cys	Glu	Arg	Gly	Asp
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Pro	Gly	Ser	Ser	Pro	Ala	Gly	Pro	Arg	Glu	Ala	Ser	Pro	Leu	Val	Val
		355					360					365			
Ile	Ser	Gln	Pro	Ala	Pro	Ile	Ser	Pro	His	Leu	Ser	Gly	Pro	Ala	Glu
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Asp	Ser	Ser	Ser	Asp	Ser	Glu	Ala	Glu	Asp	Glu	Lys	Ser	Val	Leu	Met
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470

475

480

<210> 3985

<211> 523

<212> DNA

<213> Homo sapiens

<400> 3985

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<210> 3986

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3986

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Ser	Ser	Glu	Ala	Asp	Ala	Ala	Ile	Phe	Pro	Val	Gln	Pro	Gly	Thr	Val
		20					25				30				
Lys	Val	Glu	Val	Ala	Pro	Gly	Thr	Ser	Val	Leu	Ser	Ser	Ser	Ala	Ser
		35				40					45				
Ser	Ser	Cys	Phe	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys
		50			55					60					
Cys	Cys	Trp	Met	Arg	Leu	Arg	Ser	Glu	Arg	Leu	Ser	Ser	Ala	Leu	Ala
65					70					75				80	
Ala	Ala	Gly	Thr	Ser	Arg	Ala	Phe	Ser	Ser	Pro	Thr	Ala	Arg	Pro	Arg
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<210> 3987

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<212> DNA

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<400> 3987

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<210> 3988

<211> 1817

<212> PRT

<213> Homo sapiens

<400> 3988

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 35 40 45
 Glu Gln Ile Gly Ala His Arg Lys Ser Lys Lys Ala Leu Ser Ala Lys

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Glu Gln Leu Lys His Val Thr Glu Gln Gln Ser Met Val Gln Lys Gln		80
	85	90
Leu Glu Gln Ile Arg Lys Gln Gln Lys Glu His Ala Glu Leu Ile Glu		95
	100	105
Asp Tyr Arg Ile Lys Gln Gln Gln Gln Cys Ala Met Ala Pro Pro Thr		110
	115	120
Met Met Pro Ser Val Gln Pro Gln Pro Pro Leu Ile Pro Gly Ala Thr		125
	130	135
Pro Pro Thr Met Ser Gln Pro Thr Phe Pro Met Val Pro Gln Gln Leu		140
	145	150
Gln His Gln Gln His Thr Thr Val Ile Ser Gly His Thr Ser Pro Val		155
	165	170
Arg Met Pro Ser Leu Pro Gly Trp Gln Pro Asn Ser Ala Pro Ala His		175
	180	185
Leu Pro Leu Asn Pro Pro Arg Ile Gln Pro Pro Ile Ala Gln Leu Pro		190
	195	200
Ile Lys Thr Cys Thr Pro Ala Pro Gly Thr Val Ser Asn Ala Asn Pro		205
	210	215
Gln Ser Gly Pro Pro Pro Arg Val Glu Phe Asp Asp Asn Asn Pro Phe		220
	225	230
Ser Glu Ser Phe Gln Glu Arg Glu Arg Lys Glu Arg Leu Arg Glu Gln		235
	245	250
Gln Glu Arg Gln Arg Ile Gln Leu Met Gln Glu Val Asp Arg Gln Arg		255
	260	265
Ala Leu Gln Gln Arg Met Glu Met Gln Gln His Gly Met Val Gly Ser		270
	275	280
Glu Ile Ser Ser Ser Arg Thr Ser Val Ser Gln Ile Pro Phe Tyr Ser		285
	290	295
Ser Asp Leu Pro Cys Asp Phe Met Gln Pro Leu Gly Pro Leu Gln Gln		300
	305	310
Ser Pro Gln His Gln Gln Gln Met Gly Gln Val Leu Gln Gln Gln Asn		315
	325	330
Ile Gln Gln Gly Ser Ile Asn Ser Pro Ser Thr Gln Thr Phe Met Gln		335
	340	345
Thr Asn Glu Arg Arg Gln Val Gly Pro Pro Ser Phe Val Pro Asp Ser		350
	355	360
Pro Ser Ile Pro Val Gly Ser Pro Asn Phe Ser Ser Val Lys Gln Gly		365
	370	375
His Gly Asn Leu Ser Gly Thr Ser Phe Gln Gln Ser Pro Val Arg Pro		380
	385	390
Ser Phe Thr Pro Ala Leu Pro Ala Ala Pro Pro Val Ala Asn Ser Ser		395
	405	410
Leu Pro Cys Gly Gln Asp Ser Thr Ile Thr His Gly His Ser Tyr Pro		415
	420	425
Gly Ser Thr Gln Ser Leu Ile Gln Leu Tyr Ser Asp Ile Ile Pro Glu		430
	435	440
Glu Lys Lys Lys Lys Arg Thr Arg Lys Lys Lys Arg Asp Asp Asp		445
	450	455
Ala Glu Ser Thr Lys Ala Pro Ser Thr Pro His Ser Asp Ile Thr Ala		460
	465	470
Pro Pro Thr Pro Gly Ile Ser Glu Thr Thr Ser Thr Pro Ala Val Ser		475
		480

3156

915 920 925
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 930 935 940
 Ile Leu Pro Ser Thr Ala Gly Lys Ser Ser Glu Ser Arg Arg Asn Asp
 945 950 955 960
 Ile Lys Thr Glu Pro Gly Thr Leu Tyr Phe Ala Ser Pro Phe Gly Pro
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 Ser Pro Asn Gly Pro Arg Ser Gly Leu Ile Ser Val Ala Ile Thr Leu
 980 985 990
 His Pro Thr Ala Ala Glu Asn Ile Ser Ser Val Val Ala Ala Phe Ser
 995 1000 1005
 Asp Leu Leu His Val Arg Ile Pro Asn Ser Tyr Glu Val Ser Ser Ala
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1780 1785 1790
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<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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Asn	Tyr	Arg	Gln	Ala	Tyr	Ser	Pro	Arg	Arg	Gly	Arg	Ser	Arg	Ser	Arg
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Arg	Ser	Ser	Ser	Asn	His	Ser	Arg	Val	Glu	Ser	Ser	Lys	Arg	Lys	Ser
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Pro	Pro	Ser	Thr	Gly	Ser	Thr	Tyr	Gly	Ser	Ser	Gln	Lys	Glu	Glu	Ser
				325					330					335	
Ala	Ala	Ser	Gly	Gly	Ala	Ala	Tyr	Thr	Lys	Arg	Tyr	Leu	Glu	Glu	Gln
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Lys	Thr	Glu	Asn	Gly	Lys	Asp	Lys	Glu	Gln	Lys	Gln	Thr	Asn	Thr	Asp

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Gln	Asp	Lys	Asp	Lys	Ala	Lys	Gly	Arg	Lys	Glu	Ser	Glu	Phe	Asp	Asp
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Phe	Ser	Ile	Thr	Arg	Glu	Ala	Gln	Val	Asn	Val	Arg	Met	Asp	Ser	Phe
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Tyr	Leu	Lys	Arg	Gly	Thr	Glu	Gln	Glu	Ala	Ala	Lys	Asn	Lys	Lys	Ser
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Pro	Glu	Ile	His	Arg	Arg	Ile	Asp	Ile	Ser	Pro	Ser	Thr	Phe	Arg	Lys
				675					680					685	
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				770					775					780	
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785					790					795						800
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<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
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      20              25              30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35              40              45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
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Val Ala Asn Gly Ala His Val Glu
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 <212> DNA
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<400> 3995

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<210> 3996

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3996

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 35 40 45
 Gly Ser Asn Pro Thr Pro Pro Ala Ser Val Met Gly Ser Pro Pro Ser
 50 55 60
 Ser Leu Gln Glu Ala Gln Arg Gly Arg Ala Ala Ser His Ser Arg Ala
 65 70 75 80
 Leu Thr Leu Pro Ser Ala Leu His Phe Ala Ser Ser Leu Leu Leu Thr
 85 90 95
 Arg Ala Gly Ala Asn Val His Glu Ala Cys Thr Phe Asp Asp Thr Ser
 100 105 110
 Glu Gly Ala Val His Tyr Phe Tyr Asp Glu Ser Gly Val Arg Arg Ser
 115 120 125
 Tyr Thr Phe Gly Leu Ala Gly Gly Tyr Glu Asn Pro Val Gly Gln
 130 135 140
 Gln Gly Glu Gln Thr Ala Asn Gly Ala Trp Asp Arg His Ser His Ser
 145 150 155 160
 Ser Ser Phe His Ser Ala Asp Val Pro Glu Ala Thr Gly Gly Leu Asn
 165 170 175
 Leu Leu Gln Pro Arg Pro Val Val Leu Gln Gly Met Gln Val Arg Arg

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His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<212> DNA

<213> Homo sapiens

<400> 3997

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Glu Ala Glu Ala Phe Ala Leu Tyr His Lys Ala Leu Asp Leu Gln Lys
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His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
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Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
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Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
      85           90           95
Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
      100          105          110
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1505		1510		1515	1520
Ser Arg Phe	Pro Gln His Tyr Lys Ser Leu Tyr Arg Leu Ala Phe Leu				
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Tyr Thr Tyr	Ser Lys Thr His Arg Asn Leu Gln Trp Ala Arg Asp Val				
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Leu Leu Gly	Ser Ser Ile Pro Trp Gln Gln Leu Gln His Met Pro Ala				
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Gln Gly Leu	Phe Cys Glu Arg Asn Lys Thr Asn Phe Phe Asn Gly Ile				
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Trp Arg Ile	Pro Val Asp Glu Ile Asp Arg Pro Gly Ser Phe Ala Trp				
1585		1590		1595	1600
His Met Asn	Arg Ser Ile Val Leu Leu Leu Lys Val Leu Ala Gln Leu				
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Arg Asp His	Ser Thr Leu Leu Lys Val Ser Ser Met Leu Gln Arg Thr				
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Pro Asp Gln	Gly Lys Lys Tyr Leu Arg Asp Ala Asp Arg Gln Val Leu				
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Ala Gln Arg	Ala Phe Ile Leu Thr Val Lys Val Leu Glu Asp Thr Leu				
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Ser Glu Leu	Ala Glu Gly Ser Glu Arg Pro Gly Pro Lys Val Cys Gly				
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Leu Pro Gly	Ala Arg Met Thr Thr Asp Val Ser His Lys Ala Ser Pro				
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Glu Asp Gly	Gln Glu Gly Leu Pro Gln Pro Lys Lys Pro Pro Leu Ala				
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Asp Gly Ser	Gly Pro Gly Pro Glu Pro Gly Gly Lys Val Gly Leu Leu				

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 1845 1850 1855
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 1970 1975 1980
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 2005 2010 2015
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 2020 2025 2030
 Arg His Ser Pro Gln Val Lys Met Ala Pro Thr Ser Ser Pro Ala Glu
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 Thr Cys Ser Gln Glu Gly Lys Leu Arg Pro Glu Pro Arg Arg Asp Gly
 2065 2070 2075 2080
 Glu Ala Gln Glu Ala Ala Ser Glu Thr Gln Pro Leu Ser Ser Pro Pro
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 2115 2120 2125
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Leu Ser Ala Gln Ser Ala Ala Asn Val Arg Lys Glu Ser Leu Cys Gln			
	2180	2185	2190
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<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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 35           40           45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
 50           55           60
Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
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His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85           90           95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100           105           110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
115           120           125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130           135           140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145           150           155           160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165           170           175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
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Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
195           200           205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
210           215           220
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
225           230           235           240
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245           250           255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
260           265           270
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275           280           285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
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305           310           315           320
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325           330           335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
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370           375           380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
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Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

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Lys	Val	Gly	Val	Ala	Phe	Asp	His	Met	Lys	Val	Cys	Phe	Gly	Asp	Phe			
485					490				495									
Pro	Thr	Met	Pro	Lys	Leu	Ile	Pro	Pro	Thr	Glu	Ser	Pro	Val	Cys	Trp			
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Arg	His	Arg	Gly	Asp	Gly	Gly	Ala	Gln	Gly	Glu	Ala	Gly	Ala	Ala	Ala			
515			520				525											
Gly	Ala	Gly	Gly	Pro	Pro	Val	Gln	Gly	Ala	Gly	Arg	Arg	Pro	Gly	Gly			
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Trp	Gly	Ala	Ser	Ala	Glu	Ala	Gly	Pro	His	Arg	Gly	Ala	Thr	Gly	Gln			
545					550				555					560				
Glu	Gly	Gln	Ser	Pro	Val	Lys	Ile	Trp	Glu	Thr	Leu	Asn	Ser	Glu	Gly			
565					570				575									
Cys	Val	Ser	Ser	Ala	Pro	Arg	Thr	His	Pro	Tyr	Leu	Pro	Ser	Leu	Leu			
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<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 4002

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			20					25					30		
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
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Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
		50				55					60				
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
				85					90				95		
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
			100					105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115					120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
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Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
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Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165					170					175		
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
			180					185					190		
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<210> 4004

<211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4004

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		20						25				30			
Leu	Ala	Leu	Lys	Phe	Thr	Cys	Ser	Arg	Ala	Lys	Asp	Val	Ile	Ile	Pro
		35				40					45				
Ala	Lys	Pro	Pro	Val	Ser	Phe	Phe	Ser	Leu	Arg	Ser	Pro	Val	Leu	Asp
	50					55					60				
Leu	Phe	Gln	Gly	Gln	Leu	Asp	Tyr	Ala	Glu	Tyr	Val	Arg	Arg	Asp	Ser
65					70					75				80	
Glu	Val	Val	Leu	Leu	Phe	Phe	Tyr	Ala	Pro	Trp	Cys	Gly	Gln	Ser	Ile
			85					90					95		
Ala	Ala	Arg	Ala	Glu	Ile	Glu	Gln	Ala	Ala	Ser	Arg	Leu	Ser	Asp	Gln
		100						105					110		
Val	Leu	Phe	Val	Ala	Ile	Asn	Cys	Trp	Trp	Asn	Gln	Gly	Lys	Cys	Arg
		115				120					125				
Lys	Gln	Lys	His	Phe	Phe	Tyr	Phe	Pro	Val	Ile	Tyr	Leu	Tyr	His	Arg
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Ser	Phe	Gly	Pro	Ile	Glu	Tyr	Lys	Gly	Pro	His	Glu	Cys	Cys	Leu	His
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 <213> Homo sapiens

<400> 4005

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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
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Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
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Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
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115 120 125
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130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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<210> 4007
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<212> DNA
<213> Homo sapiens

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900
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1920

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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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			20					25					30		
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
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Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
	50					55				60					
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65					70				75					80	
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
			85					90					95		
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
		100					105					110			
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
	115					120					125				
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
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Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
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Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
		165					170					175			
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
		180					185					190			
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
	195					200				205					
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
	210				215					220					
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225				230					235					240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
		245					250					255			
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile

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 Tyr Asp
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<210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens

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 aatgaaaaaa ccataggcag tctcctaata gagttttact gttctgaaaa cacttctgtc
 240
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 480
 tatcatgtga gaaggaaaat tttagacaat gtatcactgc cactggtttt ggagttgcca
 540
 gttaaaagaa ttacttcttt ctcttcattg tcagaaagtt ggtctgtaga tgttgacttc
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<210> 4010
 <211> 225
 <212> PRT
 <213> Homo sapiens

<400> 4010
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 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

						85		90				95				
Pro	Gly	Gly	Glu	Thr	Thr	Pro	Ser	Val	Thr	Asp	Leu	Leu	Asn	Tyr	Phe	
				100						105						
Leu	Ala	Pro	Glu	Ile	Leu	Thr	Gly	Asp	Asn	Gln	Tyr	Tyr	Cys	Glu	Asn	
				115						120						
Cys	Ala	Ser	Leu	Gln	Asn	Ala	Glu	Lys	Thr	Met	Gln	Ile	Thr	Glu	Glu	
				130						135						
Pro	Glu	Tyr	Leu	Ile	Leu	Thr	Leu	Leu	Arg	Phe	Ser	Tyr	Asp	Gln	Lys	
				145						150						
Tyr	His	Val	Arg	Arg	Lys	Ile	Leu	Asp	Asn	Val	Ser	Leu	Pro	Leu	Val	
				165						170						
Leu	Glu	Leu	Pro	Val	Lys	Arg	Ile	Thr	Ser	Phe	Ser	Ser	Leu	Ser	Glu	
				180						185						
Ser	Trp	Ser	Val	Asp	Val	Asp	Phe	Thr	Asp	Leu	Ser	Glu	Asn	Leu	Ala	
				195						200						
Lys	Lys	Leu	Lys	Pro	Ser	Gly	Thr	Asp	Glu	Ala	Ser	Cys	Thr	Lys	Leu	
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225																

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<210> 4011
<211> 1371
<212> DNA
<213> Homo sapiens
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240
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480
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540
actgtgactg ggccacgtgt ggaggaggcc atgtacaggt caatccgctg gctggaccgg
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tgcattgcag cccatcagcg gccggacaag cagaacctct tcgccattat ccagggtggg
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720
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780
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840

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<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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			20					25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
			35				40					45			
Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
			50			55					60				
Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
65				70					75					80	
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
				85				90					95		
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
			100					105					110		
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
			115				120					125			
Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
			130			135					140				
Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
145				150					155					160	
Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
			165					170					175		
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
			180				185						190		
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
			195			200						205			
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			210			215					220				
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<211> 1419
<212> DNA
<213> Homo sapiens
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420
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480
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600
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660

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<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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			20					25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
			35				40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala
	50					55				60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65					70					75				80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
				85					90					95	
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
			100					105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
			115				120					125			
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130					135					140				
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145					150					155				160	
Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

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Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
195      200      205
Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
210      215      220
Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
225      230      235      240
Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
245      250      255
Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
260      265      270
Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
275      280      285
Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
290      295      300
Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
305      310      315      320
Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
325      330      335
Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
340      345      350
Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
355      360      365
Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser
370      375      380
Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly
385      390      395      400
Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu
405      410      415
Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Arg Lys
420      425      430
Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr
435      440      445
Leu Ser Asp Glu Ser Ile Cys Ser Asn Arg Arg Gly Ser Ser Phe Gly
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Ser Ser Arg Ser Ser Val Leu Asp Gln
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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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240

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<210> 4016
 <211> 95
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Ser Pro Thr Lys Pro Lys Gly Arg Pro Lys Lys Asn Ser Ile Pro
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<210> 4017
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 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4024

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Thr Ile Tyr Gly Thr Glu Ser Tyr Val Val Ser Leu Thr Thr Asn Cys			
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Ser Gly Lys Gly Ile Leu Ser Gly His Ala Asp Gly Thr Ile Val Arg			
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Tyr Phe Phe Asp Asp Glu Gly Ser Gly Glu Ser Gln Gly Lys Leu Val			
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Val Ala Ala Gly Cys Asp Arg Lys Ile Val Ala Tyr Gly Lys Glu Gly			
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His Met Leu Gln Thr Phe Asp Tyr Ser Arg Asp Pro Gln Glu Arg Glu			
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Phe Thr Thr Ala Val Ser Ser Pro Gly Gly Gln Ser Val Val Leu Gly			
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Ser Tyr Asp Arg Leu Arg Val Phe Asn Trp Ile Pro Arg Arg Ser Ile			
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Trp Glu Glu Ala Lys Pro Lys Glu Ile Thr Asn Leu Tyr Thr Ile Thr			
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Cys Gly Gly Val Glu Gln Phe Asp Cys Cys Leu Arg Arg Ser Ile Tyr			
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Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp Ile Lys			
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Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val			
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Ser His Glu Ser Arg Val Asp Trp Leu Glu Leu Asn Glu Thr Gly His			
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Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

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Met	Trp	Lys	Thr	Leu	Ser	Lys	Leu	Ala	Leu	Glu	Ala	Arg	Gln	Leu	His
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<212> DNA

<213> Homo sapiens

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<211> 302

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<213> Homo sapiens

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acagtcttgg tgaagaacac gaagaagact aatccagaga tgaaagaaaa accctgccat
660

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tttgaaagat gtgaagggga ggtgaacaca cgcttcagcc taaaacacta agtagatgca
 720
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 780
 caggccagtg cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc
 840
 tctgcggagt acagtgcatt gggtcggctg ggacaccccc aggcagcaga tcttggtatt
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 941

<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

Ala	Arg	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu	Lys	Gly	Glu	Ser
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Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val	Leu	Pro	Glu	Glu	Pro
			20					25					30		
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
		35					40					45			
Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	Thr	Lys	Val	Glu	Trp	Ile	Phe
	50					55				60					
Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys
65					70					75				80	
Leu	Arg	Met	Ser	Ala	Glu	Tyr	Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn
				85				90					95		
Arg	Val	Asn	Leu	Val	Gly	Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met
		100						105					110		
Leu	Gln	Gly	Val	Arg	Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile
	115						120					125			
His	Leu	Gly	Asn	Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser
	130					135					140				
Pro	Glu	Glu	Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu
145					150					155				160	
Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
			165					170						175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
		180					185					190			
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
	195						200					205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
	210					215				220					
Glu	Gly	Glu	Val	Asn	Thr	Arg	Phe	Ser	Leu	Lys	His				
225				230					235						

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120
 ctacatgctg ctgctggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcagggcgga
 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
 240
 ggtgggcccgt gctggcgcgc gccgccaaca tggcgctgtt ccgggacagc cgtgtctcgg
 300
 ccattctcgt cggcaaaaac gtggtggcg cgcaccacaa ggcctgcacc tnttcctgga
 360
 gtaccgccgc caggtgcgcg acttcccnng ccgcctgcgc tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgccgccg ccgcgcgcgc cgctgcacgg ccgcctggg
 480
 ncgccccac atgtcctcgc ccacgcgtga cccctggac acgtgacagg gcccgcgcg
 540
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 600
 gggatgggggt gggggcgggc tcccctaggg acaggtgcct cgagtggccg tgctgggggt
 660
 ccgcggccg cttcttcac tcaggaatct ctcgaccgc ggatcctcag ccccgctcc
 720
 accagccgc cccagcgct ggtctgttt gggaggcctg ggccggagca gagcagaggt
 780
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 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

Arg	Pro	Pro	Val	Leu	Gly	Gly	Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	His
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Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
			20					25					30		
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala	
			35				40				45				
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
			50			55					60				
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65					70					75				80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
				85					90					95	
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105					110		
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

	115		120		125	
Pro	Xaa	Pro	Pro	Ala	Leu	Ser
	130		135		140	
Arg	Asn	Ser	Val	Pro	Pro	Pro
	145		150		155	
Xaa	Pro	Pro	His	Val	Leu	Ala
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<210> 4031
 <211> 1406
 <212> DNA
 <213> Homo sapiens

<400> 4031
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 120
 gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat
 180
 actacagctg caagaacttt tccagataaa aaggaacgtg aagaaatata gactttaaaa
 240
 cagcaaatag cagattttacg ggaagatttg aaaagaaagg agaccaaata gtcaagtaca
 300
 cacagccgtc tcagaagcca gatacaaata ttagtcagag agaacacaga cctccgggaa
 360
 gaaataaaaag tgatggaaag attccgactg gatgcctgga agagagcaga agccatagag
 420
 agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaaac
 480
 agtcagattt ctccaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
 540
 ggcaatccac ctccaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag
 600
 ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat
 660
 aaagaggagg aggaagacca agacatacag ggagaaatca gtcactctga tggaaagggtg
 720
 gaaaaggttt ataagaatgg gtgccgtggt atactgtttc ccaatggaac tcgaaaggaa
 780
 gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcaggtc
 840
 atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagacatac
 900
 ccggagggac tggaagtctt acattttctca agtggacaaa tagaaaaaca ttaccagat
 960
 ggaagaaaag aaatcacgtt tctgaccag actgttaaaa acttatttcc tgatggacaa
 1020
 gaagaaagca ttttcccaga tggtaaat gtcagagtac aacgtgatgg caacaaactc
 1080
 atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
 1140
 ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
 1200

ggctcgataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac
 1320
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
 1380
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 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
	20						25					30			
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
	35						40					45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50					55					60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65					70				75					80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85					90					95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
			100					105					110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130					135					140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145					150					155				160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165					170						175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
			180					185					190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210					215					220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225					230					235				240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245					250						255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
			260					265					270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290					295					300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

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<210> 4033
<211> 487
<212> DNA
<213> Homo sapiens
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<400> 4033
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120
tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttcccaggct ggcttctcac
240
tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
300
aacttccacg gccggccctc aatggcttcc tttctctccc acaagagcgc tgggccaaagc
360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgcta
420
ggaccagacg ggaggcctgg cgccccgcc cgccatgtgt ggggagcggg cctctccaag
480
ccagttcc
487

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<210> 4034
<211> 94
<212> PRT
<213> Homo sapiens
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<400> 4034
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Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
      20             25             30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
      35             40             45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

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      50              55              60
Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
65              70              75              80
Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
      85              90

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<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 120
 tcctatggga gggacaaact ctcagaaaat agcaagagta ttttggaatc ctatctgagg
 180
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgaggga caaacattca
 240
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
 300
 agtgtttctgg aatccttttt ttttttgaag ctttcaatct ctt
 343

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4036
 Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
 1 5 10 15
 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
 20 25 30
 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
 85 90 95
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
 100 105 110
 Ile Ser

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

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 tcatcataaa ggtcttcatt ctcatcctct tcacgttgag taggctgagg aggaggaaga
 120
 ggaggagaag gggttggctct tgctgtctca gggcggcaga ggcagaagag aatctgagca
 180
 tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtccctgc
 240
 tggaatgatg cctttacaca tctgtctgat ctgattgctc cactgttttc tgactttctct
 300
 tccctttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtac
 360
 agatacaact gcatggctcc ttccttgccg caagagaggt ttgcctttaa gatctcacca
 420
 aagcccagca aaccactgag gccttgattt cagctgagca gcaagaatga agccagtggg
 480
 atgggtggccc cggctgtcca ggagaagaag gtgaaaaagc ggggtgtcctt cgcagacaac
 540
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 660
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 720
 caggccgacc acgtctgcct t
 741

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Arg	Gln	Glu	Arg	Phe	Ala	Phe	Lys	Ile	Ser	Pro	Lys	Pro	Ser	Lys	Pro
			20					25					30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
		35					40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
	50					55				60					
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
65					70					75				80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
			85						90					95	
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100					105					110		
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
		115					120					125			
Ala	Asp	His	Val	Cys	Leu										
			130												

<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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120
gagcgaggag ccctcgacag cgctagtctg cgagtgcgag ctacagcccgg cacctgttcc
180
tccagcgccg ccgccttccc acccctcgga cccgcgcccgc tcgcgcgccc cgcccgttcc
240
tgcatgaat ccggccctag gcaaccagac ggacgtggcg ggccttcctg gccaacagca
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gcgaggcgct ggagcgagcc gtgcgctgct gcacccaggc gtccgtggtg accgacgacg
360
gcttcgcgga gggaggcccc gacgagcgta gcctgtacat aatgcgcgtg gtgcagatcg
420
cggtcagtgt cgtgctctca ctacacgtgg tcttcggcat cttcttcctc ggctgcaatc
480
tgctcatcaa gtccgagggc atgatcaact tcctcgtgaa ggaccggagg ccgtctaagg
540
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600
cccacgcctg ccacttttgc tagcccggtg gtgcccctca ctatcagaga ctgggcgaag
660
caaacctgtc ggagtcaatt atttctctcg acttcggcct ttcggaaaga agcgaccggt
720
ttctccctcg ccctctgaaa gtctcatgac ctggcagtcg gaggagagcg ccagactct
780
gaactcagca gaaagtggca agaagagggc gattagggcg cagaactttg gaagctgcta
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960
tgtgaccgga agagtgcact gttaaaagcc acgcagcaga ctcatggggc ctcacaaatc
1020
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1080
gataaatacc tttgattgta acgtgccgtt ttaagagggt ttgtgtttgt ttgcttgaat
1140
acaaatgttt gataagtctt tttctgcccc agtggcctgt ttgcctgcct gaggagtta
1200
agtgtttgtc ttgtggaaga aggggtgggg ggagggggag cctgcgaatt tgaacgggg
1260
gagttgttcc ttttagtgca tttccactg ggtcttttgg gaggcgtcta gcgttcctgc
1320
tgcccctggg acaaagaccc agaatagaac tcgtagctcg tgactgcacg gtttacgcca
1380
caaaagtgtc cttgacatcc gtgacaccgt tttgactttt tggttttttc ttatttaaca
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1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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Thr Ala Gln Gly Leu Ser Lys Ala Glu Arg Gly Ala Leu Ala Arg Ala
20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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120
tgtgttgcca attcagatga acagcttggt gagatgtttc tggaagaaaa aatcccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
tttttgggaa gcgccttgaa gaacaaagga gttagcctc ttttagatgc tgtttttagaa
300
tacctcccaa atccatctga agtccagaac tatgctattc tcaataaaga ggatgactca
360
aaagagaaaa ccaaaatcct aatgaactcc agtagagaca attcccaccc attttagggc
420
ctggctttta aactggaggt aggtcgattt ggacaattaa cttatgttcg cagttatcag
480
ggagagctaa agaagggtga caccatctat aacacaagga caagaaagaa agtacgggtg
540
caacggctgg ctgcgatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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 1 5 10 15
 Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Thr
 20 25 30
 Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
 35 40 45
 Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
 50 55 60
 Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
 65 70 75 80
 Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
 85 90 95
 Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
 100 105 110
 Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
 115 120 125
 Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
 130 135 140
 Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
 145 150 155 160
 Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
 165 170 175
 Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
 180 185 190

<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 <212> PRT
 <213> Homo sapiens

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 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75 80
 Gly Ile Pro Ile Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu
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 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
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<210> 4045
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 <212> DNA
 <213> Homo sapiens

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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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			20					25					30		
His	Leu	Gln	Asn	Leu	Glu	Asn	Ser	Ala	Phe	Thr	Ala	Asp	Arg	His	Lys
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Lys	Arg	Lys	Leu	Leu	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Lys	Leu	Leu	Lys
	50					55					60				
Val	Asn	Gly	Ser	Thr	Thr	Ala	Ile	Cys	Ala	Thr	Gly	Leu	Arg	Asn	Leu
65					70					75				80	
Gly	Asn	Thr	Cys	Phe	Met	Asn	Ala	Ile	Leu	Gln	Ser	Leu	Ser	Asn	Ile
				85				90						95	
Glu	Gln	Phe	Cys	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg
			100					105					110		
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		115				120						125			
Asp	Asn	Asn	Val	Ser	Leu	Val	Glu	Glu	Phe	Arg	Lys	Thr	Leu	Cys	Ala
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				165					170					175	
Ala	His	Glu	Phe	Xaa	Ala	Leu	Pro	Phe	Gly	Pro	Pro	Thr	Leu	Gly	Xaa
			180					185					190		
Phe	Arg	Ala	Val	Ser	Thr	Val	Phe	Pro	Ala	Gln	Gln	Phe	Cys	Arg	Arg
		195					200						205		
Ile	Leu	Leu	Cys	Leu	Gln	Val	Xaa	Lys	Cys	Cys	Ile	Asn	Gly	Ala	Ser
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Thr	Val	Val	Thr	Ala	Ile	Phe	Gly	Gly	Ile	Leu	Gln	Asn	Glu	Val	Asn
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Cys	Leu	Ile	Cys	Gly	Thr	Glu	Ser	Arg	Lys	Phe	Asp	Pro	Phe	Leu	Asp
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Leu	Ser	Leu	Asp	Ile	Pro	Ser	Gln	Phe	Arg	Ser	Lys	Arg	Ser	Lys	Asn

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<210> 4047
<211> 809
<212> DNA
<213> Homo sapiens
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180
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240
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300
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420
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480
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720

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 809

<210> 4048
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4048
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 Val Ala Ile Gly Phe Thr Gly Gly Leu Val Phe Met Tyr Val Gln Cys
 35 40 45
 Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val
 50 55 60
 Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn
 65 70 75 80
 Phe Ser Cys Asn Val Asn Thr Asp Ile Lys Asp Ala Val Val Val Pro
 85 90 95
 Val Pro Gln Thr Gly Ala Asn Ser Leu Pro Ser Ala Glu Gly Gly Pro
 100 105 110
 Pro Glu Val Val Ser Val
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<210> 4049
 <211> 1211
 <212> DNA
 <213> Homo sapiens

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 780
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<211> 403

<212> PRT

<213> Homo sapiens

<400> 4050

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			20					25					30		
Phe	Glu	Gly	His	Lys	Leu	Ile	Ala	His	Trp	Phe	Arg	Gly	Tyr	Leu	Ile
		35					40					45			
Ile	Val	Ser	Arg	Asp	Arg	Lys	Val	Ser	Pro	Lys	Ser	Glu	Phe	Thr	Ser
		50				55					60				
Arg	Asp	Ser	Gln	Ser	Ser	Asp	Lys	Gln	Ile	Leu	Asn	Ile	Tyr	Asp	Leu
65					70				75					80	
Cys	Asn	Lys	Phe	Ile	Ala	Tyr	Ser	Thr	Val	Phe	Glu	Asp	Val	Val	Asp
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Val	Leu	Ala	Glu	Trp	Gly	Ser	Leu	Tyr	Val	Leu	Thr	Arg	Asp	Gly	Arg
			100					105					110		
Val	His	Ala	Leu	Gln	Glu	Lys	Asp	Thr	Gln	Thr	Lys	Leu	Glu	Met	Leu
		115					120						125		
Phe	Lys	Lys	Asn	Leu	Phe	Glu	Met	Ala	Ile	Asn	Leu	Ala	Lys	Ser	Gln
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His	Leu	Tyr	Ser	Lys	Gly	Asn	His	Asp	Gly	Ala	Val	Gln	Gln	Tyr	Ile
			165						170					175	
Arg	Thr	Ile	Gly	Lys	Leu	Glu	Pro	Ser	Tyr	Val	Ile	Arg	Lys	Phe	Leu
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Tyr Thr Lys Leu Lys Asp Ser Ser Lys Leu Glu Glu Phe Ile Lys Lys		
225	230	235
Lys Ser Glu Ser Glu Val His Phe Asp Val Glu Thr Ala Ile Lys Val		
245	250	255
Leu Arg Gln Ala Gly Tyr Tyr Ser His Ala Leu Tyr Leu Ala Glu Asn		
260	265	270
His Ala His His Glu Trp Tyr Leu Lys Ile Gln Leu Glu Asp Ile Lys		
275	280	285
Asn Tyr Gln Glu Ala Leu Arg Tyr Ile Gly Lys Leu Pro Phe Glu Gln		
290	295	300
Ala Glu Ser Asn Met Lys Arg Tyr Gly Lys Ile Leu Met His His Ile		
305	310	315
Pro Glu Gln Thr Thr Gln Leu Leu Lys Gly Leu Cys Thr Asp Tyr Arg		
325	330	335
Pro Ser Leu Glu Gly Arg Ser Asp Arg Glu Ala Pro Gly Cys Arg Ala		
340	345	350
Asn Ser Glu Glu Phe Ile Pro Ile Phe Ala Asn Asn Pro Arg Glu Leu		
355	360	365
Lys Ala Phe Leu Glu His Met Ser Glu Val Gln Pro Asp Ser Pro Gln		
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<211> 1645

<212> DNA

<213> Homo sapiens

<400> 4051

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180

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240

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<210> 4052

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4052

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Gly	Gly	Asn	Ala	Trp	Gly	Gly	Ala	Cys	Leu	Pro	Ala	Pro	Tyr	Gly	Gly
		20					25					30			
Ala	Glu	Gly	Val	Arg	Pro	Pro	Pro	Gly	Pro	Ala	Pro	Leu	Pro	Pro	Gly
		35					40					45			
Pro	Thr	Lys	Pro	Leu	Pro	Pro	Ala	Pro	Pro	Ser	Met	Gly	Ser	Asp	Ser
		50					55				60				
Ser	Gly	Glu	Arg	Ser	Pro	Ser	Pro	Pro	Trp	Pro	Pro	Pro	Pro	Pro	Pro
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Ala	Gln	Val	Gly	Asp	Pro	Ala	Pro	Phe	Ala	Ser	Ala	Val			

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90

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 <213> Homo sapiens

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 360
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 461

<210> 4054
 <211> 96
 <212> PRT
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<400> 4054
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 Glu Gly Arg Gly Gly Ser Arg His Ser Cys Pro Arg Arg Val Gly Arg
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 Arg Ser Val Leu Lys Gly Gly Gln Gly Ser Phe Val Leu Asn Arg Glu
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 Gly Gln Ile Tyr Ser Leu Gly Pro Ser Gly Val Ala Ala Arg Glu Arg
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<210> 4055
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 <212> DNA
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 120

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240
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<212> DNA

<213> Homo sapiens

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Phe	Ser	Asn	Ile	Ser	Ser	Ile	Tyr	Gln	Phe	His	Ser	Gln	Phe	Phe	Leu
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Tyr	Val	Lys	Asn	Phe	Glu	Arg	Ala	Ala	Glu	Leu	Leu	Ala	Thr	Trp	Thr
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<212> PRT

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Met Val Gly Leu His Gly Arg Arg Asn Ser Gly Lys Leu Met Ser Leu
65      70      75      80
Asp Lys Ala Pro Leu Arg Gln Leu Leu Asp Ala Thr Ile Gly Ala Tyr
      85              90              95
Ile Asn Thr Thr His Ser Arg Leu Thr His Ile Ser Pro Arg His Tyr
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Ser Glu Phe Ile Glu Phe Leu Ser Lys Ala Arg Glu Thr Phe Leu Met
      115             120             125
Ala His Asp Gly His Ile Gln Phe Thr Gln Phe Ile Asp Asn Leu Lys
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Gln Ile Tyr Lys Gly Lys Lys Lys Leu Met Met Leu Val Arg Arg Glu
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<210> 4063

<211> 4137

<212> DNA

<213> Homo sapiens

<400> 4063

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<210> 4064
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 <213> Homo sapiens

<400> 4064

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Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
          35           40           45
Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
          50           55           60
Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
65          70           75           80
Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
          85           90           95
Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
          100          105          110
Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
          115          120          125
His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
          130          135          140
Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
          145          150          155          160
Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
          165          170          175
Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
          180          185          190
Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
          195          200          205
Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
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Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
          225          230          235          240
Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
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Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
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Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
          275          280          285
Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
          290          295          300
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
          305          310          315          320
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
          325          330          335
Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
          340          345          350
Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
          355          360          365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu Gly Gly Ser
      420              425              430
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln Gly Ser Glu
      435              440              445
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg
      450              455              460
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg
465              470              475              480
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His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg
      500              505              510
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp
      515              520              525
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa
530              535              540
Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln
545              550              555              560
Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys
      565              570              575
Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn
      580              585              590
Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys
      595              600              605
Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys
610              615              620
His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys
625              630              635              640
Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg
      645              650              655
Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly
660              665              670
Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe
675              680              685
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr
690              695              700
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys
705              710              715              720
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro
      725              730              735
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn
740              745              750
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys
755              760              765
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly
770              775              780
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<213> Homo sapiens
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      20                      25                      30
Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile
      35                      40                      45
Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
      50                      55                      60
Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
65      70                      75                      80
Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn
      85                      90                      95
Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

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      100      105      110
Lys Gly Tyr Glu Glu Asp Val Gly Arg Met Thr Met Ile Arg Val Val
      115      120      125
Ser His Thr Ser Val Pro Leu Leu Lys Asn Pro Asp Tyr Phe Phe
      130      135      140
Lys Glu Ala Asn Thr Thr Ile Tyr Val Ile Trp Gly Pro Phe Arg Asn
145      150      155      160
Met Arg Lys Asp Gly Asn Gly Ile Val Tyr Asn Met Leu Lys Lys Thr
      165      170      175
Val Gly Ile Tyr Pro Asn Ala Gln Ile Tyr Val Thr Thr Glu Lys Arg
      180      185      190
Met Ser Tyr Cys Asp Gly Val Leu Arg Arg Lys Xaa Gly Lys Asp Ser
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Thr Glu
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<210> 4067
 <211> 1800
 <212> DNA
 <213> Homo sapiens

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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

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Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
		35					40					45			
Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
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Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
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Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
				85				90					95		
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
			100					105					110		
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
		115					120					125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
		130				135					140				
Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

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 Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
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 Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
 225 230 235 240
 Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
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 Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
 260 265 270
 Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
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 Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu
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 Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu
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 Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
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 Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
 420 425 430
 Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
 435 440 445
 Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
 450 455 460
 Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
 465 470 475 480
 Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
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 Arg Val Ser Phe Ser Lys Ser Thr Ile
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<211> 714

<212> DNA

<213> Homo sapiens

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<210> 4070

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4070

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		20					25					30			
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
		35				40					45				
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
		50			55					60					
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
65				70				75						80	
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
			85				90						95		
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
			100				105						110		
Glu															

<210> 4071

<211> 601

<212> DNA

<213> Homo sapiens

<400> 4071

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 catccacgat tgctgtagt tctgcaggc actgcccctc cagctggaga cgtgcatcac
 180
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 240
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 300
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 420
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 480
 tccttaccag ccgggggacg agtgcgaccc ttccccacg agcgaggcaa ctggggcacc
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 600
 c
 601

<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

Met	Val	His	Arg	Arg	Gly	Trp	Pro	Ser	Cys	Leu	Ala	Arg	Gly	Gly	Arg	1	5	10	15
Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser	20	25	30	
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val	35	40	45	
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr	50	55	60	
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe	65	70	75	80
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val	85	90	95	
Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr	100	105	110	
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala	115	120	125	
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val	130	135	140	
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln	145	150	155	160
Val	Arg	Cys	Lys	Ser	Gly	Asn	Lys	Phe	Phe	Ser	Met	Pro	Leu	Lys		165	170	175	

<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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120
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180
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240
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360
aagaaactta cagaagctga tgcttaccta caaatcttga ttgaacaatt aaagcttttt
420
gatgacaagc ttcaaaactg caaagaagat gaacagagaa agaaaattga aactctcaaa
480
gagacaacaa atagcatggt agaatcaatt aaacactgca ttgtgttgct gcagattgcc
540
aaagaccaga gtaatgcgga gaagcacgca gatggaatga taagtactat taatcccgtg
600
gatgcaatat atcaacctag tcctttggaa cctgtgatca gcacaatgcc tcccagact
660
gtgttacctc cagaacctgt tcagttgtgt aagtcagagc agcgtccatc ttccctacca
720
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780
agtggccatt caccaccgag tagcagtctc acttctccaa gccacgtgaa cttgtctcca
840
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960
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1020
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1080
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1140
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1260
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1380
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1440
gaaggaccag ttccctgggt ttccaaaaac agtgtaacat ttgtggctga gcaggtttcc
1500

catcatccac ccatttcagc cttttatgct gagtgtttta acaagaagat acaattcaat
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 cagggtgtg tctcatgtct agactatgat gaacattaca ttctcacatt cccaatggc
 1680
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 1740
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 1860
 attg
 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

Met Val Glu Ser Ile Lys His Cys Ile Val Leu Leu Gln Ile Ala Lys
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 20 25 30
 Asn Pro Val Asp Ala Ile Tyr Gln Pro Ser Pro Leu Glu Pro Val Ile
 35 40 45
 Ser Thr Met Pro Ser Gln Thr Val Leu Pro Pro Glu Pro Val Gln Leu
 50 55 60
 Cys Lys Ser Glu Gln Arg Pro Ser Ser Leu Pro Val Gly Pro Val Leu
 65 70 75 80
 Ala Thr Leu Gly His His Gln Thr Pro Thr Pro Asn Ser Thr Gly Ser
 85 90 95
 Gly His Ser Pro Pro Ser Ser Ser Leu Thr Ser Pro Ser His Val Asn
 100 105 110
 Leu Ser Pro Asn Thr Val Pro Glu Phe Ser Tyr Ser Ser Ser Glu Asp
 115 120 125
 Glu Phe Tyr Asp Ala Asp Glu Phe His Gln Ser Gly Ser Ser Pro Lys
 130 135 140
 Arg Leu Ile Asp Ser Ser Gly Ser Ala Ser Val Leu Thr His Ser Ser
 145 150 155 160
 Ser Gly Asn Ser Leu Lys Arg Pro Asp Thr Thr Glu Ser Leu Asn Ser
 165 170 175
 Ser Leu Ser Asn Gly Thr Ser Asp Ala Asp Leu Phe Asp Ser His Asp
 180 185 190
 Asp Arg Asp Asp Asp Ala Glu Ala Gly Ser Val Glu Glu His Lys Ser
 195 200 205
 Val Ile Met His Leu Leu Ser Gln Val Arg Leu Gly Met Asp Leu Thr
 210 215 220
 Lys Val Val Leu Pro Thr Phe Ile Leu Glu Arg Arg Ser Leu Leu Glu
 225 230 235 240
 Met Tyr Ala Asp Phe Phe Ala His Pro Asp Leu Phe Val Ser Ile Ser
 245 250 255
 Asp Gln Lys Asp Pro Lys Asp Arg Met Val Gln Val Val Lys Trp Tyr

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                260                265                270
Leu Ser Ala Phe His Ala Gly Arg Lys Gly Ser Val Ala Lys Lys Pro
                275                280                285
Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
                290                295                300
Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
305                310                315                320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
                325                330                335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
                340                345                350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
                355                360                365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
370                375                380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
385                390                395                400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
                405                410                415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
                420                425                430
Tyr Gly Gly Lys Lys His Arg Ile Thr Ala Glu Ile Phe Ser Pro Asn
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Asp Lys Lys Ser Phe Cys Ser Ile
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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180
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240
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300
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360
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420
aaggtgaaaa tgccacagaa aaaagaagac ccacagctac ctcggaaaag ctccccgaaa
480
tccacagcgc ctgtcatgga tttgttgggc cttgatgctc ctgtggcctg ctccattgca
540
aatagtaaga ccagcaatac cctagagaag gatttagatc tgttggcctc tgttccatcc
600
ccttcttctt cgggttccag aaaggttgta ggttccatgc caactgcagg gagtgccggc
660

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tctgttcctg aaaatctgaa cctgtttccg gagccaggga gcaaatacaga agaaataggc
720
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780
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840
ttccccgggg ttacacctcc taacagcata atggggagca tgatgcctcc accagtaggc
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1020
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1080
cagcagctgc aatggaacct tactcagatg acccagcaga tggctgggat gaacttctat
1140
ggagccaatg gcatgatgaa ctatggacag tcaatgagtg gcggaaatgg acaggcagca
1200
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1260
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1320
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1380
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1440
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1620
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1680
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1920
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<210> 4076
<211> 410
<212> PRT
<213> Homo sapiens
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3264

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Thr Thr Gln Gln	Ala Gly Tyr Met Ala Gly Met	Ala Ala Met Pro Gln				
	340		345		350	
Thr Val Tyr Gly	Val Gln Pro Ala Gln Gln Leu Gln Trp	Asn Leu Thr				
	355		360		365	
Gln Met Thr Gln	Gln Met Ala Gly Met Asn Phe Tyr Gly	Ala Asn Gly				
	370		375		380	
Met Met Asn Tyr	Gly Gln Ser Met Ser Gly Gly	Asn Gly Gln Ala Ala				
	385		390		395	
Asn Gln Thr Leu	Ser Pro Gln Met Trp Lys				400	
	405		410			

<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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 180
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 240
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 300
 gccggccgcc tgggctgctc gctcaccgag atccacacgc tcttcgcca gcacatcaag
 360
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 420
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 540
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 684

<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4078

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	20		25		30										
Arg	Glu	Ile	Asn	Pro	Leu	Leu	Phe	Ser	Tyr	Val	Glu	Glu	Leu	Val	Glu
	35		40		45										
Ile	Arg	Lys	Leu	Arg	Gln	Asp	Ile	Leu	Leu	Met	Lys	Pro	Tyr	Phe	Ile
	50		55		60										
Thr	Cys	Arg	Glu	Ala	Met	Glu	Ala	Arg	Leu	Leu	Leu	Gln	Leu	Gln	Asp
65			70		75									80	
Arg	Gln	His	Phe	Val	Glu	Asn	Asp	Glu	Met	Tyr	Ser	Val	Gln	Asp	Leu
		85			90								95		
Leu	Asp	Val	His	Ala	Gly	Arg	Leu	Gly	Cys	Ser	Leu	Thr	Glu	Ile	His
	100				105								110		
Thr	Leu	Phe	Ala	Lys	His	Ile	Lys	Leu	Asp	Cys	Glu	Arg	Cys	Gln	Ala
	115				120								125		
Lys	Gly	Phe	Val	Cys	Glu	Leu	Cys	Arg	Glu	Gly	Asp	Val	Leu	Phe	Pro
	130				135								140		
Phe	Asp	Ser	His	Thr	Ser	Val	Cys	Ala	Asp	Cys	Ser	Ala	Val	Phe	His
145			150							155					160
Arg	Asp	Cys	Tyr	Tyr	Asp	Asn	Ser	Thr	Thr	Cys	Pro	Lys	Cys	Ala	Arg
		165							170					175	
Leu	Ser	Leu	Arg	Lys	Gln	Ser	Leu	Phe	Gln	Glu	Pro	Gly	Pro	Asp	Val
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Glu	Ala														

<210> 4079

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4079

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120
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360
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420
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540
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600
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660
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720

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 780
 nta
 783

<210> 4080
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4080
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 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
 50 55 60
 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
 65 70 75 80
 Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly
 85 90 95
 His Ala Arg Thr Lys
 100

<210> 4081
 <211> 645
 <212> DNA
 <213> Homo sapiens

<400> 4081
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 180
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 240
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 300
 caatgccaga tgggtaagca aactatgggc tttccacttc tcacttatca agaccgatcg
 360
 gataacaaac tgtatcgtct tcagactcct cagagtcctt tggtagagacc ctccatgtat
 420
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 480
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 645

<210> 4082
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 4082
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 35 40 45
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
 50 55 60
 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
 65 70 75 80
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
 100 105 110
 Leu Leu Thr Tyr Gln Asp Arg Ser Asp Asn Lys Leu Tyr Arg Leu Gln
 115 120 125
 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
 130 135 140
 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
 145 150 155 160
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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 Asp Leu Ser Glu Lys Ile Lys Gln Gly Asp Ser Ser Leu Val Phe Gly
 195 200 205
 Ile Lys Pro Gly Asp Pro Arg
 210 215

<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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 180
 aaaactaaat gccttgaggg gaaggccgct gttcatttct tatctatttt gcctacacgg
 240
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 300
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 360

ggaacacagga tggcaagttt aaaacagatc tggatatgtg gcttcagggg cacatctgta
420
caaacttata tctcacaagt ggcaaagaga taaaaactcc attctttcct cctctgaatt
480
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660
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720
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<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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 Pro Ser Gly Thr Ser Lys Ser Asp Ala Asn Arg Ala Ser Ser Gly Gly
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<212> DNA

<213> Homo sapiens

<400> 4085

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<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
          675          680          685
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Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
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Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
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<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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          20          25          30
Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
          35          40          45
Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
          50          55          60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
65          70          75          80
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
          85          90          95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
          100         105         110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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720

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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
		50				55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65					70				75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115				120						125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
		130				135					140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

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 165 170 175
 Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
 180 185 190
 Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
 195 200 205
 Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
 210 215 220
 Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
 225 230 235 240
 Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
 245 250 255
 Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
 260 265 270
 Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
 275 280 285
 Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
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 Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
 305 310 315 320
 Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
 325 330 335
 Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
 340 345 350
 Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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120

agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg

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<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

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Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
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Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Gly Phe Ser Ser Thr Val
      20           25           30
Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
      35           40           45
Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
      50           55           60
Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
65           70           75           80
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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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1020

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<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

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			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
		35					40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
		50				55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65				70					75					80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90					95		
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
		115					120						125		
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
		130				135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145				150					155					160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
		180					185						190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
		195					200						205		
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
		210				215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225				230					235					240	
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
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Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

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<210> 4100
 <211> 100
 <212> PRT
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<400> 4100
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 20 25 30
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 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
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 Pro Glu Phe His
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<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
			35				40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
			50				55				60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
					70					75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
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Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
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<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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<212> PRT

<213> Homo sapiens

<400> 4104

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Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

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Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
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<212> DNA
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Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro					
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<212> DNA

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<400> 4107

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<211> 273

<212> PRT

<213> Homo sapiens

<400> 4108

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Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
	50					55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
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Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
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Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
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Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
145					150					155					160
Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
			165						170					175	
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			180					185					190		
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		195					200					205			
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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg				240
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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		20						25					30		
Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
		35					40					45			
His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
	50					55				60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
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Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
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		100					105					110			
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 260 265 270
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 275 280 285
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 305 310 315 320
 Pro Leu Arg Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys
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 Arg Ser Arg Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser
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<210> 4111

<211> 2599

<212> DNA

<213> Homo sapiens

<400> 4111

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<210> 4112
 <211> 775
 <212> PRT
 <213> Homo sapiens

<400> 4112
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 145 150 155 160
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 180 185 190
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 195 200 205
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 Pro Gly Tyr Val Val Thr Pro His Thr Met Asn Leu Leu Lys Gln His
 245 250 255
 Leu Glu Ile Thr Gly Gly Gln Val Arg Thr Arg Phe Pro Pro Glu Pro
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 Gly Tyr Ala Lys Ala Asn Asn Gly Ile Cys Phe Leu Arg Phe Asp Asp
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3298

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<210> 4113
 <211> 1894
 <212> DNA
 <213> Homo sapiens

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<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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Lys	Ala	Leu	Cys	Thr	Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp	Ser
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Pro	Gly	Leu	Glu	Gly	Arg	Pro	Glu	Arg	Leu	Pro	Leu	Val	Pro	Glu	Ser
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260              265              270
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln
      275              280              285
Ala Ser Ser Leu Cys Ser Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser
290              295              300
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn
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Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
340              345              350
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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720

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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
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<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

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<210> 4118

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4118

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	20						25					30			
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
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Arg	Cys	Val	Gly	Cys	Pro	Arg	Pro	Ala	Arg	Pro	Ala	Ser	Pro	Ser	Pro
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65				70					75					80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
			85					90					95		
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
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<210> 4119

<211> 649

<212> DNA

<213> Homo sapiens

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<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
 65 70 75 80
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<210> 4121
 <211> 2490
 <212> DNA
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<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Ala	Ile	Leu	Asn	Thr	Met	Ser	Gln	Glu	Leu	Val	Pro	Ala	Ser	Arg	Val

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<212> DNA

<213> Homo sapiens

<400> 4123

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<212> PRT

<213> Homo sapiens

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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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<210> 4127

<211> 2189

<212> DNA

<213> Homo sapiens

<400> 4127

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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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 Glu Asn Pro Cys Leu Thr Phe Ile Ile Ser Ser Ile Leu Glu Ser Asp

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 65 70 75 80
 Gly Asn Ala Val Thr Asn Ala Thr Trp Glu Glu Met Trp Leu Ser Glu
 85 90 95
 Gly Leu Ala Thr Tyr Ala Gln Arg Arg Ile Thr Thr Glu Thr Tyr Gly
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 Ala Ala Phe Thr Cys Leu Glu Thr Ala Phe Arg Leu Asp Ala Leu His
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 Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe
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 Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys
 165 170 175
 Gly Asp Pro Gln Arg Phe Asp Asp Phe Leu Arg Ala Tyr Val Glu Lys
 180 185 190
 Tyr Lys Phe Thr Ser Val Val Ala Gln Asp Leu Leu Asp Ser Phe Leu
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 260 265 270
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 275 280 285
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 385 390 395 400
 Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala
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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

<400> 4129

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<210> 4130

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4130

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Val	Val	Asp	Gln	Gly	Ala	Gly	Ala	Ser	Arg	Gly	Gly	Asn	Thr	Arg	Lys
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His	Leu	Gln	Pro	Ile	Arg	Asn	Met	Ser	Val	Ser	Arg	Thr	Met	Glu	Asp
65				70					75					80	
Ser	Cys	Glu	Leu	Asp	Leu	Val	Tyr	Val	Thr	Glu	Arg	Ile	Ile	Ala	Val
		85				90						95			
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His	Asn	Val	Val	Val	Leu	His	Asn	Lys	Gly	Asn	Arg	Gly	Arg	Ile	Gly
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Val	Gln	Phe	His	Thr	Cys	Ala	Ile	His	Ala	Trp	Gly	Val	Val	Phe	Gly
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Lys	Glu	Asp	Leu	Asp	Asp	Ala	Phe	Lys	Asp	Asp	Arg	Phe	Pro	Glu	Tyr
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				405					410					415	
Arg	Asp	Asp	Gly	Met	Glu	Glu	Val	Val	Gly	His	Thr	Gln	Gly	Pro	Leu
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Ser	Thr	Gly	Ala	Val	Asn	Ala	Thr	Arg	Pro	Thr	Leu	Ser	Ala	Thr	Pro
	450					455					460				
Asn	His	Val	Glu	His	Thr	Leu	Ser	Val	Ser	Ser	Asp	Ser	Gly	Asn	Ser
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Thr	Ala	Ser	Thr	Lys	Thr	Asp	Lys	Thr	Asp	Glu	Pro	Val	Pro	Gly	Ala
				485					490					495	
Ser	Ser	Ala	His	Ala	Ala	Arg	Thr	Val	Thr	Ile	Leu	Val	Trp	Gln	Phe
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<210> 4131
<211> 608
<212> DNA
<213> Homo sapiens
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<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
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Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
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Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

<400> 4133
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<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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<210> 4135

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4135

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<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys	Leu	Thr	Thr	Gly	Arg	Ile	Ala	Glu
	35					40					45				
Leu	Leu	Ser	Pro	Asp	Tyr	Met	Asp	Leu	Glu	Asp	Pro	Arg	Pro	Ile	Phe
	50				55					60					
Asp	Trp	Met	Gln	Ile	Ile	Arg	Lys	Arg	Ala	Val	Val	Tyr	Val	Gly	Leu
65				70				75						80	
Asp	Ala	Leu	Ser	Asp	Thr	Glu	Val	Ala	Ala	Ala	Val	Gly	Asn	Ser	Met
			85					90					95		
Phe	Ser	Asp	Leu	Val	Ser	Val	Ala	Gly	His	Ile	Tyr	Lys	Phe	Gly	Ile
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<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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<211> 353

<212> PRT

<213> Homo sapiens

<400> 4138

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Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
			115					120				125			
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Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
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Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
			260					265					270		
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Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
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Cys	Ala	Thr	Ala	Asn	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe
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 <211> 431
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 <211> 1182
 <212> DNA
 <213> Homo sapiens

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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
		35				40						45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
		50			55						60				
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70					75					80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90						95	
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

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<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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		20					25					30			
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
	35					40					45				
Ser	Val	Leu	Tyr	Leu	His	Arg	Ser	Leu	Ala	Asp	Leu	Gly	Arg	Leu	Trp

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      85              90              95
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
      100             105             110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
      115             120             125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
      130             135             140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
145             150             155             160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
      165             170             175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
      180             185             190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
      195             200             205
Asp Pro Ala Ala Tyr Val Thr Asn Leu Ser Tyr Tyr His Leu Val Pro
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 4560
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 4620
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 4680
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 4892

<210> 4148
 <211> 697
 <212> PRT
 <213> Homo sapiens

<400> 4148
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 20 25 30
 Val Ser Ala Thr Gly Glu Leu Leu Glu Arg Thr Ile Arg Ser Ala Val
 35 40 45
 Glu Gln His Leu Phe Asp Val Asn Asn Ser Gly Gly Gln Ser Ser Glu
 50 55 60
 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg
 65 70 75 80
 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
 85 90 95
 Asp Lys Gly Leu Ile Asn Lys Glu Asn Thr Pro Ser Gly Phe Asn His
 100 105 110
 Leu Asp Asp Cys Ile Leu Asn Thr Gln Glu Val Glu Lys Val His Lys
 115 120 125
 Asn Thr Phe Gly Cys Ala Gly Glu Arg Ser Lys Pro Lys Arg Gln Lys
 130 135 140
 Ser Ser Thr Lys Leu Ser Glu Leu His Asp Asn Gln Asp Gly Leu Val
 145 150 155 160
 Asn Met Glu Ser Leu Asn Ser Thr Arg Ser His Glu Arg Thr Gly Pro
 165 170 175
 Asp Asp Phe Glu Trp Met Ser Asp Glu Arg Lys Gly Asn Glu Lys Asp

180													185				190					
Gly	Gly	His	Thr	Gln	His	Phe	Glu	Ser	Pro	Thr	Met	Lys	Ile	Gln	Glu							
		195					200					205										
His	Pro	Ser	Leu	Ser	Asp	Thr	Lys	Gln	Gln	Arg	Asn	Gln	Asp	Ala	Gly							
	210					215					220											
Asp	Gln	Glu	Glu	Ser	Phe	Val	Ser	Glu	Val	Pro	Gln	Ser	Asp	Leu	Thr							
225					230					235					240							
Ala	Leu	Cys	Asp	Glu	Lys	Asn	Trp	Glu	Glu	Pro	Ile	Pro	Ala	Phe	Ser							
			245					250						255								
Ser	Trp	Gln	Arg	Glu	Asn	Ser	Asp	Ser	Asp	Glu	Ala	His	Leu	Ser	Pro							
		260						265					270									
Gln	Ala	Gly	Arg	Leu	Ile	Arg	Gln	Leu	Leu	Asp	Glu	Asp	Ser	Asp	Pro							
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Met	Leu	Ser	Pro	Arg	Phe	Tyr	Ala	Tyr	Gly	Gln	Ser	Arg	Gln	Tyr	Leu							
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Asp	Asp	Thr	Glu	Val	Pro	Pro	Ser	Pro	Pro	Asn	Ser	His	Ser	Phe	Met							
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Arg	Arg	Arg	Ser	Ser	Ser	Leu	Gly	Ser	Tyr	Asp	Asp	Glu	Gln	Glu	Asp							
			325					330						335								
Leu	Thr	Pro	Ala	Gln	Leu	Thr	Arg	Arg	Ile	Gln	Ser	Leu	Lys	Lys	Lys							
		340						345					350									
Ile	Arg	Lys	Phe	Glu	Asp	Arg	Phe	Glu	Glu	Glu	Lys	Lys	Tyr	Arg	Pro							
	355						360					365										
Ser	His	Ser	Asp	Lys	Ala	Ala	Asn	Pro	Glu	Val	Leu	Lys	Trp	Thr	Asn							
	370					375					380											
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385					390					395					400							
Ser	Glu	Glu	Asp	Leu	Thr	Pro	Arg	Met	Arg	Gln	Arg	Ser	Asn	Thr	Leu							
			405					410						415								
Pro	Lys	Ser	Phe	Gly	Ser	Gln	Leu	Glu	Lys	Glu	Asp	Glu	Lys	Lys	Gln							
		420						425					430									
Glu	Leu	Val	Asp	Lys	Ala	Ile	Lys	Pro	Ser	Val	Glu	Ala	Thr	Leu	Glu							
		435					440					445										
Ser	Ile	Gln	Arg	Lys																		

610	615	620
Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu Lys Lys Arg Ile Arg		
625	630	635
Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe Arg Gln Asn Gly Arg		640
	645	650
Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala Glu Glu Tyr Ser Glu		655
	660	665
Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu Glu Val Leu Ile Ser		670
	675	680
Lys Arg Asp Thr Asp Ser Lys Ser Met		685
690	695	

<210> 4149

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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 300
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 420
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 480
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 720
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 780
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 1080

ccgcctgccc cagtgtgggg ggagatacct ttaccatgaa cttacagaat taaagatggc
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 1200
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 1260
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 1380
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 1396

<210> 4150
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 4150
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 His Ile Lys Arg Ile Thr Asp Asn Asp Ile Gln Ser Leu Val Leu Glu
 35 40 45
 Ile Glu Gly Thr Asn Val Ser Thr Thr Tyr Ile Thr Cys Pro Ala Asp
 50 55 60
 Pro Lys Lys Thr Leu Gly Ile Lys Leu Pro Phe Leu Val Met Ile Ile
 65 70 75 80
 Lys Asn Leu Lys Lys Tyr Phe Thr Phe Glu Val Gln Val Leu Asp Asp
 85 90 95
 Lys Asn Val Arg Arg Phe Arg Ala Ser Asn Tyr Gln Ser Thr Thr
 100 105 110
 Arg Val Lys Pro Phe Ile Cys Thr Met Pro Met Arg Leu Asp Asp Gly
 115 120 125
 Trp Asn Gln Ile Gln Phe Asn Leu Leu Asp Phe Thr Arg Arg Ala Tyr
 130 135 140
 Gly Thr Asn Tyr Ile Glu Thr Leu Arg Val Gln Ile His Ala Asn Cys
 145 150 155 160
 Arg Ile Arg Arg Val Tyr Phe Ser Asp Arg Leu Tyr Ser Glu Asp Glu
 165 170 175
 Leu Pro Ala Glu Phe Lys Leu Tyr Leu Pro Val Gln Asn Lys Ala Lys
 180 185 190
 Gln

<210> 4151
 <211> 1372
 <212> DNA
 <213> Homo sapiens

<400> 4151
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 120
 cgcgagcacc ctccccagat gaaaacacca gcaccaggag gtggggcgta gccaggctg
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 360
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 480
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 720
 acggaagct ggaccggcca gggtcagagc ccgctcgggt tgctcccaat cagaatctgc
 780
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 900
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 960
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 1080
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 1140
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 1200
 tgcgcccctg aaatgtcggc cagagaggag ctttccactt gaatctccac ggcctggatg
 1260
 gcgctgctgg gcacaggctg gtcattggcca cctctcggac gatgagggtg acgttggcgc
 1320
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 1372

<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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 Gly Cys Pro Ala Val Arg Lys Ala Ser Ala Gly Ala Ala Ala Val


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                20                25                30
Arg Glu Gly Glu Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly
                35                40                45
Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
                50                55                60
Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Leu Arg Gly Gln Val
65                70                75                80
Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
                85                90                95
Pro

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<210> 4153
 <211> 395
 <212> DNA
 <213> Homo sapiens

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<400> 4153
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120
tcattaattc ttccacttta tcattttacat ctaggtcctc ttctgaggct tcaaaactgt
180
atgacctctg acccatgctg tttgcatgga agcgagttgg tgacatcttt ccattggatg
240
tagataatcg ctcattattc tccctcccat tttgattggt agtgcaaggc tgtggggaag
300
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360
tagctgtaga ggaagatgct gggacattgt tagtn
395

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<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

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<400> 4154
Met Ser Pro Ser Pro Ser Asn Ser Tyr Asp Thr Ser Pro Gln Pro Cys
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Thr Thr Asn Gln Asn Gly Arg Glu Asn Asn Glu Arg Leu Ser Thr Ser
                20                25                30
Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
                35                40                45
Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
                50                55                60
Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
65                70                75                80
Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
                85                90                95
Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
                100                105                110

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<210> 4155
 <211> 1191
 <212> DNA
 <213> Homo sapiens

<400> 4155
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 120
 ttgatggctc caagacgtgc accattgagg acgtgtctcg caaagccacg attgaggagc
 180
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 240
 ggggcaagca gttggaaaat ggatatacct tatttgatta tgatgttga ctgaatgata
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 360
 aggctaaacc ctgttctaata agtccaccta aagtaaagaa agctccgagg gtaggacctt
 420
 ccaatcagcc atctacatca gctcgtgccc gtcttattga tcctggcttt ggaatatata
 480
 agatacccag aaagcggtag tctagaaatg aatgtcaagg atcttagacc acgagctaga
 540
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 600
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 660
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 720
 aatgactgca agataatatc tgtagatgaa atcttcaaga ttgagagacc tggagcccag
 780
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 840
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 900
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 960
 aatccacctt tggataaagt ccgagaagag gaatactggt attgtccttc ttgtaaaact
 1020
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 1080
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 1191

<210> 4156
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4156
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Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
35	40	45	
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
50	55	60	
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
65	70	75	80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
85	90	95	
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
100	105	110	
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
115	120	125	
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
130	135	140	
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
145	150	155	160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
165	170	175	
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
180	185	190	
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
195	200	205	
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro			
210	215	220	
Ser Ala Ser Thr Glu Ser Arg Arg Asp			
225	230		

<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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120
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480
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540

atatccatcc caggtgcact ggcctttgat gcctggcttg agcacaccac tgagatgcta
600
cagatgtggc aggtgcccga gggggaaaag aggcggaggc tgatggaatg cttacggggc
660
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720
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780
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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

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										20			25			30		
Asp	Glu	Phe	Glu	Glu	Thr	Leu	Gln	Glu	Ala	Cys	Arg	His	Leu	Gly	Arg			
			35			40			45									
Tyr	Arg	Val	Ile	Gly	Arg	Met	Phe	Arg	Arg	Glu	Glu	Asn	Ala	Gln	Ala			
			50			55			60									
Ile	Leu	Leu	Glu	Leu	Ala	Gln	Asp	Ile	Asp	Tyr	Ala	Leu	Leu	Pro	Arg			
65				70			75			80								
Glu	Ile	Pro	Gly	Lys	Gly	Gly	Pro	Trp	Glu	Val	Ile	Val	Lys	Pro	Arg			
			85			90			95									
Asn	Ser	Asp	Gly	Glu	Phe	Leu	Asn	Arg	Leu	Asn	Arg	Phe	Leu	Glu	Glu			
			100			105			110									
Glu	Arg	Arg	Thr	Val	Ser	Asp	Met	Asn	Arg	Val	Leu	Gly	Ser	Asp	Thr			
			115			120			125									
Asn	Cys	Ser	Ala	Pro	Arg	Val	Thr	Ile	Ser	Pro	Glu	Phe	Trp	Thr	Trp			
			130			135			140									
Ala	Gln	Thr	Leu	Gly	Ala	Ala	Val	Gln	Pro	Leu	Leu	Glu	Gln	Met	Leu			
145				150			155			160								
Tyr	Arg	Glu	Leu	Arg	Val	Phe	Ser	Gly	Asn	Thr	Ile	Ser	Ile	Pro	Gly			
			165			170			175									
Ala	Leu	Ala	Phe	Asp	Ala	Trp	Leu	Glu	His	Thr	Thr	Glu	Met	Leu	Gln			
			180			185			190									
Met	Trp	Gln	Val	Pro	Glu	Gly	Glu	Lys	Arg	Arg	Arg	Leu	Met	Glu	Cys			
			195			200			205									
Leu	Arg	Gly	Pro	Ala	Leu	Gln	Val	Val	Ser	Gly	Leu	Arg	Ala	Ser	Asn			
			210			215			220									
Ala	Ser	Ile	Thr	Val	Glu	Glu	Cys	Leu	Ala	Ala	Leu	Gln	Gln	Val	Phe			
225				230			235			240								
Gly	Pro	Val	Glu	Ser	His	Lys	Ile	Ala	Gln	Val	Lys	Leu	Cys	Lys	Ala			
			245			250			255									
Tyr	Gln	Glu	Ala	Gly	Glu	Lys	Val	Ser	Ser	Phe	Val	Leu	Arg	Leu	Glu			
			260			265			270									
Pro	Leu	Leu	Gln	Arg	Ala	Val	Glu	Asn	Asn	Val	Val	Ser	Arg	Arg	Asn			
			275			280			285									
Val	Asn	Gln	Thr	Arg	Leu	Lys	Arg	Val	Leu	Ser	Gly	Ala	Thr	Leu	Pro			
			290			295			300									
Asp	Lys	Leu	Arg	Asp	Lys	Leu	Lys	Leu	Met	Lys	Gln	Arg	Arg	Lys	Pro			
305				310			315			320								
Pro	Gly	Phe	Leu	Ala	Leu	Val	Lys	Leu	Leu	Arg	Glu	Glu	Glu	Glu	Trp			
			325			330			335									
Glu	Ala	Thr	Leu	Gly	Pro	Asp	Arg	Glu	Ser	Leu	Glu	Gly	Leu	Glu	Val			
			340			345			350									
Ala	Pro	Arg	Pro	Pro	Ala	Arg	Ile	Thr	Gly	Val	Gly	Ala	Val	Pro	Leu			
			355			360			365									
Pro	Ala	Ser	Gly	Asn	Ser	Phe	Asp	Ala	Arg	Pro	Ser	Gln	Gly	Tyr	Arg			
			370			375			380									
Arg	Arg	Arg	Gly	Arg	Gly	Gln	His	Arg	Arg	Gly	Gly	Val	Ala	Arg	Ala			
385				390			395			400								
Gly	Ser	Arg	Gly	Ser	Arg	Lys	Arg	Lys	Arg	His	Thr	Phe	Cys	Tyr	Ser			
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Cys	Gly	Glu	Asp	Gly														

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455

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<210> 4159

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4159

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<210> 4160

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4160

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			20					25					30		
Pro	Trp	Val	Asn	Asp	Gln	Asp	Val	Pro	Phe	Cys	Pro	Asp	Cys	Gly	Asn
		35					40					45			
Lys	Phe	Ser	Ile	Arg	Asn	Arg	Arg	His	His	Cys	Arg	Leu	Cys	Gly	Ser
	50					55				60					
Ile	Met	Cys	Lys	Lys	Cys	Met	Glu	Leu	Ile	Ser	Leu	Pro	Leu	Ala	Asn
65					70				75						80
Lys	Leu	Thr	Ser	Ala	Ser	Lys	Glu	Ser	Leu	Ser	Thr	His	Thr	Ser	Pro
				85				90						95	
Ser	Gln	Ser	Pro	Asn	Ser	Val	His	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Ser
			100					105					110		
Ser	Met	Ser	Ser	Val	Ser	Ser	Val	Leu	Asp	Glu	Lys	Asp	Asp	Asp	Arg
		115					120					125			
Ile	Arg	Cys	Cys	Thr	His	Cys	Lys	Asp	Thr	Leu	Leu	Lys	Arg	Glu	Gln
	130					135				140					
Gln	Ile	Asp	Glu	Lys	Glu	His	Thr	Pro	Asp	Ile	Val	Lys	Leu	Tyr	Glu
145					150					155					160
Lys	Leu	Arg	Leu	Cys	Met	Glu	Lys	Val	Asp	Gln	Lys	Ala	Pro	Glu	Tyr
				165				170						175	
Ile	Arg	Met	Ala	Ala	Ser	Leu	Asn	Ala	Gly	Glu	Thr	Thr	Tyr	Ser	Leu
			180					185						190	
Glu	His	Ala	Ser	Asp	Leu	Arg	Val	Glu	Val	Gln	Lys	Val	Tyr	Glu	Leu
	195						200					205			
Ile	Asp	Ala	Leu	Ser	Lys	Lys	Ile	Leu	Thr	Leu	Gly	Leu	Asn	Gln	Asp
	210					215					220				
Pro	Pro	Pro	His	Pro	Ser	Asn	Leu	Arg	Leu	Gln	Arg	Met	Ile	Arg	Tyr
225					230					235					240
Ser	Ala	Thr	Leu	Phe	Val	Gln	Glu	Lys	Leu	Leu	Gly	Leu	Met	Ser	Leu
				245					250					255	
Pro	Thr	Lys	Glu	Gln	Phe	Glu	Glu	Leu	Lys	Lys	Lys	Arg	Lys	Glu	Glu
			260					265						270	
Met	Glu	Arg	Lys	Arg	Ala	Val	Glu	Arg	Gln	Ala	Ala	Leu	Glu	Ser	Gln
		275					280					285			
Arg	Arg	Leu	Glu	Glu	Arg	Gln	Ser	Gly	Leu	Ala	Ser	Arg	Ala	Ala	Asn
	290					295					300				
Gly	Glu	Val	Ala	Ser	Leu	Arg	Arg	Gly	Pro	Ala	Pro	Leu	Lys	Lys	Ala
305					310					315					320
Glu	Gly	Trp	Leu	Pro	Leu	Ser	Gly	Gly	Gln	Gly	Gln	Ser	Glu	Asp	Ser
				325					330					335	
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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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			20					25					30		
Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
		35					40					45			
Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
	50					55					60				
Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
65				70					75				80		
Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
			85					90					95		
Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
		100					105					110			
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
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Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
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Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
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Ser	Glu	Glu	Pro	Asn	Cys	Ala	Cys	Asp	Gln	Phe	Arg	Cys	Gly	Asn	Gly
			165					170					175		
Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
		180					185					190			
Asp	Ser	Ser	Asp	Glu	Glu	Ile	Cys	Ala	Lys	Glu	Ala	Asn	Pro	Pro	Thr
	195						200					205			
Ala	Ala	Ala	Phe	Gln	Pro	Cys	Ala	Tyr	Asn	Gln	Phe	Gln	Cys	Leu	Ser
	210					215					220				
Arg	Phe	Thr	Lys	Val	Tyr	Thr	Cys	Leu	Pro	Glu	Ser	Leu	Lys	Cys	Asp
225				230					235					240	
Gly	Asn	Ile	Asp	Cys	Leu	Asp	Leu	Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val
			245					250					255		
Pro	Thr	Cys	Gly	Gln	Trp	Leu	Lys	Tyr	Phe	Tyr	Gly	Thr	Phe	Asn	Ser

260										265					270				
Pro	Asn	Tyr	Pro	Asp	Phe	Tyr	Pro	Pro	Gly	Ser	Asn	Cys	Thr	Trp	Leu				
275							280			285									
Ile	Asp	Thr	Gly	Asp	His	Arg	Lys	Val	Ile	Leu	Arg	Phe	Thr	Asp	Phe				
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Lys	Leu	Asp	Gly	Thr	Gly	Tyr	Gly	Asp	Tyr	Val	Lys	Ile	Tyr	Asp	Gly				
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Leu	Glu	Glu	Asn	Pro	His	Lys	Leu	Leu	Arg	Val	Leu	Thr	Ala	Phe	Asp				
325							330					335							
Ser	His	Ala	Pro	Leu	Thr	Val	Val	Ser	Ser	Ser	Gly	Gln	Ile	Arg	Val				
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His	Phe	Cys	Ala	Asp	Lys	Val	Asn	Ala	Ala	Arg	Gly	Phe	Asn	Ala	Thr				
355							360			365									
Tyr	Gln	Val	Asp	Gly	Phe	Cys	Leu	Pro	Trp	Glu	Ile	Pro	Cys	Gly	Gly				
370							375			380									
Asn	Trp	Gly	Cys	Tyr	Thr	Glu	Gln	Gln	Arg	Cys	Asp	Gly	Tyr	Trp	His				
385					390			395					400						
Cys	Pro	Asn	Gly	Arg	Asp	Glu	Thr	Asn	Cys	Thr	Met	Cys	Gln	Lys	Glu				
405							410					415							
Glu	Phe	Pro	Cys	Ser	Arg	Asn	Gly	Val	Cys	Tyr	Pro	Arg	Ser	Asp	Arg				
420							425					430							
Cys	Asn	Tyr	Gln	Asn	His	Cys	Pro	Asn	Gly	Ser	Asp	Glu	Lys	Asn	Cys				
435							440			445									
Phe	Phe	Cys	Gln	Pro	Gly	Asn	Phe	His	Cys	Lys	Asn	Asn	Arg	Cys	Val				
450							455			460									
Phe	Glu	Ser	Trp	Val	Cys	Asp	Ser	Gln	Asp	Asp	Cys	Gly	Asp	Gly	Ser				
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Asp	Glu	Glu	Asn	Cys	Pro	Val	Ile	Val	Pro	Thr	Arg	Val	Ile	Thr	Ala				
485							490					495							
Ala	Val	Ile	Gly	Ser	Leu	Ile	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu				
500							505					510							
Gly	Cys	Thr	Cys	Lys	Leu	Tyr	Ser	Leu	Arg	Met	Phe	Glu	Arg	Arg	Ser				
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Phe	Glu	Thr	Gln	Leu	Ser	Arg	Val	Glu	Ala	Glu	Leu	Leu	Arg	Arg	Glu				
530							535			540									
Ala	Pro	Pro	Ser	Tyr	Gly	Gln	Leu	Ile	Ala	Gln	Gly	Leu	Ile	Pro	Pro				
545					550			555					560						
Val	Glu	Asp	Phe	Pro	Val	Cys	Ser	Pro	Asn	Gln	Ala	Ser	Val	Leu	Glu				
565							570					575							
Asn	Leu	Arg	Leu	Ala	Val	Arg	Ser	Gln	Leu	Gly	Phe	Thr	Ser	Val	Arg				
580							585					590							
Leu	Pro	Met	Ala	Gly	Arg	Ser	Ser	Asn	Ile	Trp	Asn	Arg	Ile	Phe	Asn				
595							600			605									
Phe	Ala	Arg	Ser	Arg	His	Ser	Gly	Ser	Leu	Ala	Leu	Val	Ser	Ala	Asp				
610							615			620									
Gly	Asp	Glu	Val	Val	Pro	Ser	Gln	Ser	Thr	Ser	Arg	Glu	Pro	Glu	Arg				
625					630			635					640						
Asn	His	Thr	His	Arg	Ser	Leu	Phe	Ser	Val	Glu	Ser	Asp	Asp	Thr	Asp				
645							650					655							
Thr	Glu	Asn	Glu	Arg	Arg	Asp	Met	Ala	Gly	Ala	Ser	Gly	Gly	Val	Ala				
660							665					670							
Ala	Pro	Leu	Pro	Gln	Lys	Val	Pro	Pro	Thr	Thr	Ala	Val	Glu	Ala	Thr				
675							680			685									
Val	Gly	Ala	Cys	Ala	Ser	Ser	Ser	Thr	Gln	Ser	Thr	Arg	Gly	Gly	His				

690	695	700
Ala Asp Asn Gly Arg Asp Val Thr Ser Val Glu Pro Pro Ser Val Ser		
705	710	715
Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly		720
	725	730
Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln		735
	740	745
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu		750
	755	760
Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser		765
	770	775
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser		780
	785	790
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly		795
	805	810
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val		815
	820	825
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn		830
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Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys		845
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<210> 4163
 <211> 568
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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<400> 4164

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 Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
 35 40 45
 Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
 50 55 60
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65 70 75 80
 Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
 85 90 95
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
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<212> DNA

<213> Homo sapiens

<400> 4165

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<210> 4166
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<213> Homo sapiens

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35 40 45
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn
50 55 60
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu
65 70 75 80
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp
85 90 95
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys
100 105 110
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln
115 120 125
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly
130 135 140
Ser Arg Asn Ser Pro Ala Phe Ser Leu Pro Thr Cys Trp Asp Tyr Arg
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<210> 4167
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<213> Homo sapiens

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 780
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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
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Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
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Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
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Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
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Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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<211> 900

<212> PRT

<213> Homo sapiens

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Leu	Arg	Pro	Glu	Glu	Ser	Leu	Asp	Pro	Pro	Gly	Ala	Met	Gln	Glu	Leu
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Gly	Pro	Pro	Asn	Ser	Glu	Gly	Lys	Asp	Pro	Ala	Gly	Ala	Tyr	Arg	Ser
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Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
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Lys	Ala	Gly	Pro	Pro	Glu	Asp	Glu	Gly	Asp	Pro	Lys	Ala	Gly	Ala	Gly
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Pro	Pro	Pro	Gly	Pro	Pro	Ala	Tyr	Asp	Pro	Tyr	Gly	Pro	Tyr	Cys	Pro
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Gly	Arg	Ala	Ser	Gly	Ala	Gly	Pro	Glu	Thr	Pro	Gly	Leu	Gly	Leu	Asp
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 325 330 335
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 Gly Arg Pro Arg Ile Arg Pro Leu Glu Val Pro Thr Thr Ala Gly Pro
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 Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg
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 Gly Arg Gly Arg Gly Arg Lys Ala Glu Glu Ala Gly Gly Thr Arg Leu
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 Glu Gly Leu Gly Thr Ser Ser Gly Asp Ala Ile Ser Gly Thr Asp His
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 Asn Ser Leu Asp Ser Ser Leu Thr Arg Glu Lys Ile Glu Ala Lys Ile
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 Lys Glu Val Glu Glu Lys Gln Pro Glu Met Lys Ser Gly Phe Met Ala
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 Ser Phe Leu Asp Phe Leu Lys Ser Gly Lys Arg His Pro Pro Leu Tyr
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 Val Pro His Pro Pro Pro Ser Gly Ala Phe Gly Leu Gly Gly Ala Leu
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 Phe Ser Ser Asp Glu Glu Asp Ser Val Ala Lys Asn Arg Asp Leu Gln
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 675 680 685
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<210> 4171
<211> 889
<212> DNA
<213> Homo sapiens
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3360

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<210> 4172
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 <212> PRT
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<400> 4172
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 Lys His Ala Ala Gln Ile Gln Ala Leu Leu Arg Ile Ala Thr Leu Gln
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<212> PRT

<213> Homo sapiens

<400> 4176

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<212> DNA

<213> Homo sapiens

<400> 4177

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<212> PRT

<213> Homo sapiens

<400> 4178

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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			20					25					30		
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
		35					40					45			
Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
		50				55					60				
Val	Ile	Thr	Gly	Arg	His	Trp	Leu	Ala	Arg	Glu	Tyr	Val	Trp	Phe	Leu
65					70				75					80	
Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
			85					90					95		
Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
			100					105					110		
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
		115					120					125			
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
		130				135					140				
Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
145				150					155					160	
Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
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<400> 4182
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	20		25		30										
Ala	His	Phe	Ser	Ala	Lys	Glu	Ala	Gly	Asp	Leu	Ser	Thr	Leu	Phe	Asp
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Val	Gly	Gly	Ile	Ile	Gly	Gly	Ile	Val	Ala	Gly	Leu	Val	Ser	Asp	Tyr
	50				55				60						
Thr	Asn	Gly	Arg	Ala	Thr	Thr	Cys	Cys	Val	Met	Leu	Ile	Leu	Ala	Ala
65					70				75					80	
Pro	Met	Met	Phe	Leu	Tyr	Asn	Tyr	Ile	Gly	Gln	Asp	Gly	Ile	Ala	Ser
			85						90					95	
Ser	Ile	Val	Met	Leu	Ile	Ile	Cys	Gly	Gly	Leu	Val	Asn	Gly	Pro	Tyr
			100						105					110	
Ala	Xaa	Ile	Thr	Thr	Ala	Val	Ser	Ala	Asp	Leu	Gly	Thr	His	Lys	Ser
	115								120					125	
Leu	Lys	Gly	Asn	Ala	Lys	Ala	Leu	Ser	Thr	Val	Thr	Ala	Ile	Ile	Asp
	130								135					140	
Gly	Thr	Gly	Ser	Ile	Gly	Ala	Ala	Leu	Gly	Pro	Leu	Leu	Ala	Gly	Leu
145					150					155				160	
Ile	Ser	Pro	Thr	Gly	Trp	Asn	Asn	Val	Phe	Tyr	Met	Leu	Ile	Ser	Ala
				165					170					175	
Asp	Val	Leu	Ala	Cys	Leu	Leu	Leu	Cys	Arg	Leu	Val	Tyr	Lys	Glu	Ile
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<210> 4183

<211> 1129

<212> DNA

<213> Homo sapiens

<400> 4183

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660
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720
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780

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 1020
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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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			20					25						30	
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35					40					45			
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
	50					55					60				
Thr	His	Pro	Gln	Met	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala	
65					70				75					80	
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
				85					90					95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
		115					120					125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
		130				135					140				
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
145					150					155					160
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
				165					170					175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
			180					185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
		195					200					205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
		210				215					220				
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
225					230					235					240
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
				245					250					255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
			260					265					270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

	275		280		285										
Ser	Gln	Gln	Glu	Gln	Thr	Ala	Phe	Leu	Pro	Ala	Asn	Gln	Val	Pro	Val
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Leu	Gln	Gln	Asn	Thr	Ser	Val	Ala	Thr	Lys	Gln	Pro	Gln	Thr	Ser	Val
305				310						315					320
Val	Gln	Asn	Gln	Gln	Ile	Ser	Gln	Gln	Gly	Pro	Ile	Tyr	Asp	Glu	
			325					330					335		
Val	Glu	Leu	Asp	Ala	Leu	Ala	Glu	Ile	Glu	Arg	Ile	Glu	Arg	Glu	Ser
			340					345				350			
Ala	Ile	Glu	Arg	Glu	Arg	Phe	Ser	Lys	Glu	Val	Gln	Asp	Lys	Asp	Lys
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Pro	Leu	Lys	Lys	Lys	Lys										
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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1020

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50					55					60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65					70					75					80
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
				85					90					95	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100					105					110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115					120					125			
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
	130					135					140				
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
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Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165						170					175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
		180						185					190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
		195					200						205		
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210					215						220			
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225				230						235				240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

245 250 255
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 260 265 270
 Tyr Glu Thr Leu Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser
 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
 290 295 300
 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
 305 310 315 320
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
 340 345 350
 Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val Ser Ile
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 Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly Val Gln Ser
 370 375 380
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<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Pro	Arg	Val	Leu	Ala	Asp	Ser	Phe	Pro	Asp	Ser	Ser	Pro	Tyr	Glu	Gly
		20						25				30			
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
	35					40					45				
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55					60				
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65					70					75				80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85					90						95	
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
	115						120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
	130					135					140				
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
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Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165						170					175	
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
			180					185					190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195						200					205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
	210					215					220				
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225				230						235				240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245						250					255	
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			260					265						270	

<210> 4189

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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<211> 523

<212> PRT

<213> Homo sapiens

<400> 4190

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<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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<400> 4192

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<212> DNA

<213> Homo sapiens

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<210> 4194
 <211> 519
 <212> PRT
 <213> Homo sapiens

<400> 4194
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 35 40 45
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 50 55 60
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
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 Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His
 85 90 95
 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu
 100 105 110
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
 115 120 125
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
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 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
 145 150 155 160
 Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His
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 Leu Cys Asn Tyr Ala Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu
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 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg
 195 200 205
 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His
 210 215 220
 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile
 225 230 235 240
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile
 245 250 255
 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala
 260 265 270
 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu
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 Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu
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 Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn
 305 310 315 320
 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
 325 330 335
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys

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 Pro Leu Ala Glu Gly Thr Pro Arg Ser Asn His Ser Ala Gln Asp Ser
 355 360 365
 Ala Val Glu Asn Leu Leu Leu Ser Lys Ala Lys Leu Val Pro Ser
 370 375 380
 Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Gln Asp Ser Thr Asp Thr
 385 390 395 400
 Glu Ser Asn Asn Glu Glu Gln Arg Ser Gly Leu Ile Tyr Leu Thr Asn
 405 410 415
 His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys Glu Glu His
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 Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser Gln Asp Ala
 435 440 445
 Leu Arg Val Val Ser Thr Ser Gly Glu Gln Met Lys Val Tyr Lys Cys
 450 455 460
 Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His
 465 470 475 480
 Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met Cys Gly
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<210> 4195

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala		35	40	45	
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro	50	55	60	
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu	65	70	75	80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp	85	90	95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr	100	105	110	
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp	115	120	125	
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln	130	135	140	
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala	145	150	155	160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly	165	170	175	
Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile	180	185	190	
Thr	His	Val	Val	Asn	Ala	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly	195	200	205	
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala	210	215	220	
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val	Ala	225	230	235	240
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3391

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<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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			20					25					30		
Lys	Thr	Thr	Phe	Val	Asn	Val	Ile	Ala	Ser	Gly	Gln	Phe	Ser	Glu	Asp
		35				40						45			
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
	50					55					60				
Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
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Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90						95	
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
		100						105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
		115					120					125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
	130					135					140				
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
145				150						155					160
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
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Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
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<210> 4201
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 <212> DNA
 <213> Homo sapiens

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<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

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Thr	Val	Asp	Arg	Phe	Gly	Arg	Arg	Gly	Ile	Leu	Leu	Leu	Ser	Met
				85					90				95	
Leu	Thr	Gly	Ile	Ala	Ser	Leu	Val	Leu	Leu	Gly	Leu	Trp	Asp	Tyr
			100					105				110		
Asn	Glu	Ala	Ala	Ile	Thr	Thr	Phe	Ser	Val	Leu	Gly	Leu	Phe	Ser
		115					120					125		
Gln	Ala	Ala	Ala	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ala	Glu	Val	Ile
		130					135					140		
Thr	Thr	Val	Arg	Gly	Arg	Gly	Leu	Gly	Leu	Ile	Met	Ala	Leu	Gly
		145			150					155				160
Leu	Gly	Gly	Leu	Ser	Gly	Pro	Ala	Gln	Arg	Leu	His	Met	Gly	His
			165					170					175	
Ala	Phe	Leu	Gln	His	Val	Val	Leu	Ala	Cys	Ala	Leu	Leu	Cys	Ile
			180					185				190		
Leu	Ser	Ile	Met	Leu	Leu	Pro	Glu	Thr	Lys	Arg	Lys	Leu	Leu	Pro
		195				200						205		
Val	Leu	Arg	Asp	Gly	Glu	Leu	Cys	Arg	Arg	Pro	Ser	Leu	Leu	Arg
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<210> 4203

<211> 1368

<212> DNA

<213> Homo sapiens

<400> 4203

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<210> 4204

<211> 80

<212> PRT

<213> Homo sapiens

<400> 4204

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			20					25					30		
Tyr	Thr	Val	Val	Pro	Phe	Val	Leu	Leu	Ser	Ile	Lys	Pro	Ser	Leu	Thr
			35				40					45			
Phe	Tyr	Ser	Ser	Trp	Tyr	Tyr	Cys	Leu	His	Ile	Leu	Gly	Ile	Leu	Val
	50				55					60					
Leu	Leu	Leu	Leu	Pro	Val	Lys	Lys	Asn	Ser	Lys	Lys	Lys	Glu	Tyr	Thr
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<210> 4205

<211> 6523

<212> DNA

<213> Homo sapiens

<400> 4205

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<212> PRT

<213> Homo sapiens

<400> 4206

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His Ser Arg Lys Ser Thr Val Thr Asp Glu Ser Glu Met Gln Asp Met			
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Met Thr Arg Gly Asn Leu Gly Leu Leu Glu Gln Ala Ile Ala Leu Lys			
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Ala Glu Gln Val Arg Thr Val Cys Glu Pro Gly Cys Pro Pro Ala Glu			
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Gln Ser Gln Leu Gly Leu Gly Glu Pro Gly Lys Ala Ala Lys Pro Leu			
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Asp Thr Val Arg Lys Ser Tyr Tyr Ser Lys Asp Pro Ser Arg Ala Glu			
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Arg Asn Thr His Arg Ser Leu Ser Gly Cys Pro Ile Ala Ala Ala Glu			
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

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			85					90					95		
Thr	Asp	Pro	Ala	Tyr	Glu	Asp	Val	Asn	Asn	Cys	His	Glu	Arg	Ala	Phe
			100					105					110		
Val	Phe	Met	His	Lys	Met	Pro	Arg	Leu	Trp	Leu	Asp	Tyr	Cys	Gln	Phe
	115					120					125				
Leu	Met	Asp	Gln	Gly	Arg	Val	Thr	His	Thr	Arg	Arg	Thr	Phe	Asp	Arg
	130				135						140				
Ala	Leu	Arg	Ala	Leu	Pro	Ile	Thr	Gln	His	Ser	Arg	Ile	Trp	Pro	Leu
145				150						155				160	
Tyr	Leu	Arg	Phe	Leu	Arg	Ser	His	Pro	Leu	Pro	Glu	Thr	Ala	Val	Arg
			165					170					175		
Gly	Tyr	Arg	Arg	Phe	Leu	Lys	Leu	Ser	Pro	Glu	Ser	Ala	Glu	Glu	Tyr
			180					185					190		
Ile	Glu	Tyr	Leu	Lys	Ser	Ser	Asp	Arg	Leu	Asp	Glu	Ala	Ala	Gln	Arg
	195					200					205				
Leu	Ala	Thr	Val	Val	Asn	Asp	Glu	Arg	Phe	Val	Ser	Lys	Ala	Gly	Lys
	210				215					220					
Ser	Asn	Tyr	Gln	Leu	Trp	His	Glu	Leu	Cys	Asp	Leu	Ile	Ser	Gln	Asn
225				230						235				240	
Pro	Asp	Lys	Val	Gln	Ser	Leu	Asn	Val	Asp	Ala	Ile	Ile	Arg	Gly	Gly
			245					250					255		
Leu	Thr	Arg	Phe	Thr	Asp	Gln	Leu	Gly	Lys	Leu	Trp	Cys	Ser	Leu	Ala
			260					265					270		
Asp	Tyr	Tyr	Ile	Arg	Ser	Gly	His	Phe	Glu	Lys	Ala	Arg	Asp	Val	Tyr
		275				280						285			
Glu	Glu	Ala	Ile	Arg	Thr	Val	Met	Thr	Val	Arg	Asp	Phe	Thr	Gln	Val
	290				295						300				
Phe	Asp	Ser	Tyr	Ala	Gln	Phe	Glu	Glu	Ser	Met	Ile	Ala	Ala	Lys	Met
305				310						315				320	
Glu	Thr	Ala	Ser	Glu	Leu	Gly	Arg	Glu	Glu	Glu	Asp	Asp	Val	Asp	Leu
			325					330					335		
Glu	Leu	Arg	Leu	Ala	Arg	Phe	Glu	His	Leu	Ile	Ser	Arg	Arg	Pro	Leu

[illegible]

770		775		780
Glu Gln Leu Ala Ala	Glu Ala Glu Arg Asp Gln Pro Leu Arg Ala Gln			
785	790	795	800	
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala				
	805	810	815	
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp				
	820	825	830	
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu				
	835	840	845	
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp				
850	855	860		

<210> 4211
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 4211
 ggggatcgct agccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
 60
 tagttacaac agactccctg ggcctactgt aggggtcaag agcagatttc cagactctca
 120
 agctggaaaa gagacgctcc acactgcgac gacaaccaac acatgggaca agctgagaaa
 180
 gtgcactcag gacttcgct gatgtcacca ccatggcaat acttagatcc tgttgcttaa
 240
 gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
 300
 aattacactt tcactactac tggttcctat ccttgtgcag taaagtacaa cctggccagg
 360
 gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
 420
 gtacggaatt tgctccacaa acccccttgc tctaga
 456

<210> 4212
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 4212
Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
1 5 10 15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20 25 30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35 40 45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50 55 60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65 70 75 80
Pro

<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
 nacgcgtacc tgtgccagcg cgcgcgcttc ttcgcagaga acgagggcct agacgactac
 60
 atggaggcac gcgagggcat gcacctcaag aacgtggact tccgtgagtt catggtggcc
 120
 ttcccgacc cggcccgcc gccctggtac gctgctcgt cggccttctg ggccgaggcg
 180
 ctgctcacgc tgcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctggt tggcctggag ggcccgggct cggccagcag cgcaggcggt
 300
 ggctcagcc ccagcgatga gctgctgccc ccgctcacc accgctgcc gcgggtcaac
 360
 acagtagaca gcacggagct cgg
 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
 Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly
 1 5 10 15
 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
 nggtacctcg gctgaataaa aattcaaaaa aacagcaatg gacaggaact tgagaagacg
 60
 ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgatacccct
 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atgggtgactg ttttaatccg ggctcgctg
 240
 agcatgctgg gagtccctgt ggaccagat actttgcatg ccaccctttg tttctgtttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctcccctggg cacccttctc
 420
 ttaagacaca tcattgagga ccctgtacc cttcgtcata ccatggaaaa ggttggtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctgggtg ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat ccttcgtgtc cttggggccag ccgcatgccg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcctgcgcc ttctgcccc tcgagggtca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccaccctttt gaagccctca cctctgcctg tcatccctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgac ctaaacctgg ggttatgacc caagagggtg gccagctcct gcaagacatg
 900
 ggtgatgatg tataaccagca gtaccgggtca cttacgcgt
 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1			5						10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
	50				55					60					
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65				70					75					80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85					90					95		
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115				120					125				
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130				135					140					
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr


```

145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

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<210> 4217
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 4217
 acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca
 60
 catacacaca cacacccctc agtcataggc tcacaagagt ctctcttgtc tctctctcat
 120
 acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct
 180
 gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
 240
 tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg ccacaaagg
 300
 tctctctctc tgtccctggc tctctctctc cgcacactcc cacacacaca catacagctc
 360
 agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
 420
 cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata
 480
 ccacctgtg ctgtgagtg ccactcccat ccaacaactg agactttctg ttactggggc
 540
 aagggtttct gccaaactca cttcccttat aatgaatgaa ttatccctca gaaggttcca
 600
 cagtcctccc ctggcgcg
 619

<210> 4218
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 4218
 Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

```

      1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145          150          155

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<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

```

ngcggccgcg cacctgctcc cgctgcccta cagcaagatc acgccccgcg ggaggcccca
60
ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctcccgcg
120
ggccatgggg aagacggccc tggtctacca cagcggcggc agcagcggct acgagagcgt
180
gatgccccgac agcagggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggttctcag agacggaggc ttatcccagc actatccctg gacacctctt ccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gagcagcccc
420
aggggccttg gggaaacctt gagattaaag tctnatgaaa tcgatgacgt ggagcgctg
480
cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag
600
gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

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<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220

```

Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1           5           10           15
Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20           25           30
Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35           40           45
Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50           55           60
Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65           70           75           80
Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85           90           95
Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100          105          110
Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115          120          125
Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130          135          140
Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145          150          155          160
Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165          170          175
Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180          185          190
Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195          200          205
Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210          215          220
Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225          230          235          240
Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245          250          255
Met Leu

```

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221

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aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
60
tcagcccat cttggcacag ttctcatgca gaatattgca cccagtgtga actaacgcta
120
gaagcttcaa actgtataaa tttaaagtga tttgcatatt ataaaaataa agataaacat
180
atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
240

```

ttaacagaac tgaaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgagggt cagggtgtaa aacatttgct
 420
 ccatgttctc gtccatgctt cccccacca cccctcccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtgagtgc
 540
 agaggggtctg ccagggtgcaa aagatgggtcc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaacg tcaactgggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattgggtgc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
 agcactatct tttccactta attttccaag aaagtatgaa gatacttgga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
			35				40					45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
			50			55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65					70					75					80
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90						95	
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
			100					105					110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
			115				120					125			

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

atcctggacc agggctacta ctgggagcga gacacaagca acgtgggtacg gcaagtcttg
 60
 gaggccgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctgggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc tttcaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaatctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtca caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgc tgtgcccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggtgtt ccgagtgacc accctcatga aacggctccg ggcaccagag
 660
 cagtccagca cggctgcagc ccagtcggcc tcagccacag aactgcccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc acccagccac tgatggcagt
 780
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atggggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1			5					10					15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
	20						25					30			
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
	35					40						45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50					55					60				
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70						75				80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90					95		
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
	100							105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
	115					120					125				
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

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<210> 4225

<211> 470

<212> DNA

<213> Homo sapiens

<400> 4225

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nntgtacaag aaagtgagcc agtcatcgtc aatattcaag tgatggatgc aaatgataac
60
acgccaaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacagggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaattg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggagac ttcacatca ataaaacaac agggcttattc
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcgataatg ctctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttccaccaa ataatcaaag cctcctcgc ttcccacagc tgatgtatag ccttgaaatt
420
agtgaagcca tgagggttg tgctgtttta ttaaatctac aggcaactga
470

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<210> 4226

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4226

```

Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
1                5                10                15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20                25                30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35                40                45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50                55                60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

```

65          70          75          80
Thr Ile Ala Pro Gly Val Glu Met Ile Val Gly Arg Thr Tyr Ala Leu
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Pro Val Gln Ala Ala Asp Asn Ala Pro Pro Ala Lys Gln Arg Thr Pro
          100          105          110
Ile Cys Thr Val Tyr Ile Glu Val Leu Pro Pro Asn Asn Gln Ser Pro
          115          120          125
Pro Arg Phe Pro Gln Leu Met Tyr Ser Leu Glu Ile Ser Glu Ala Met
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Arg Val Gly Ala Val Leu Leu Asn Leu Gln Ala Thr
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<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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180
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960
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1080

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<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

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Arg	Asp	Gln	Met	Leu	Gln	Ile	Gln	Asn	Ser	Thr	Glu	Pro	Asp	Pro	Leu
			20					25					30		
Leu	Ala	Thr	Leu	Glu	Lys	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Leu	Ser	Asn
		35					40					45			
Ile	Phe	His	Lys	Glu	Lys	Asn	Glu	Ser	Ala	Ile	Val	Ser	Ala	Ile	Gln
	50					55					60				
Ile	Leu	Leu	Thr	Leu	Leu	Glu	Thr	Arg	Arg	Pro	Thr	Phe	Glu	Gly	His
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Ile	Glu	Ile	Cys	Pro	Pro	Gly	Met	Ser	His	Ser	Ala	Cys	Ser	Val	Asn
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Lys	Ser	Val	Leu	Glu	Ala	Ile	Arg	Gly	Arg	Leu	Gly	Ser	Phe	His	Glu
			100					105					110		
Leu	Leu	Leu	Glu	Pro	Pro	Lys	Lys	Ser	Val	Met	Lys	Thr	Thr	Trp	Gly
		115					120					125			
Val	Leu	Asp	Pro	Pro	Val	Gly	Asn	Thr	Arg	Leu	Asn	Val	Ile	Arg	Leu
	130					135					140				
Ile	Ser	Ser	Leu	Leu	Gln	Thr	Asn	Thr	Ser	Ser	Ile	Asn	Gly	Asp	Leu
145					150					155				160	
Met	Glu	Leu	Asn	Ser	Ile	Gly	Val	Ile	Leu	Asn	Met	Phe	Phe	Lys	Tyr
			165						170					175	
Thr	Trp	Asn	Asn	Phe	Leu	His	Thr	Gln	Val	Glu	Ile	Cys	Ile	Ala	Leu
			180					185					190		
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	195						200					205			
Gln	Asp	Ser	Thr	Gly	Asp	Asn	Leu	Leu	Leu	Lys	His	Leu	Phe	Gln	Lys
	210					215					220				
Cys	Gln	Leu	Ile	Glu	Arg	Ile	Leu	Glu	Ala	Trp	Glu	Met	Asn	Glu	Lys
225					230					235				240	
Lys	Gln	Ala	Glu	Gly	Gly	Arg	Arg	His	Gly	Tyr	Met	Gly	His	Leu	Thr
			245						250					255	
Arg	Ile	Ala	Asn	Cys	Ile	Val	His	Ser	Thr	Asp	Lys	Gly	Pro	Asn	Ser
			260					265					270		
Ala	Leu	Val	Gln	Gln	Leu	Ile	Lys	Gly	Lys	Leu	Phe	Val	Lys	Phe	Glu
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Leu	His	Phe	Cys	Trp	Val	Ala	Gly	Arg	Ile						
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<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens


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180
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<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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			20					25					30		
Leu	Arg	Pro	Asp	Thr	Asp	Phe	Gly	Gly	Asn	Met	Lys	Ser	Val	Leu	Thr
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Trp	Lys	His	Arg	Lys	Glu	His	Ala	Ile	Pro	His	Val	Val	Leu	Gly	Arg
	50					55					60				
Asn	Leu	Pro	Gly	Gly	Ala	Trp	His	Ser	Ile	Glu	Gly	Ser	Met	Val	Ile
65					70					75					80
Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp
			85						90					95	
Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala
			100					105					110		
Gly	Asp	Ile	Ala	His	Tyr	Tyr	Arg	Asp	Tyr	Val	Val	Lys	Lys	Gly	Leu
	115						120					125			
Gly	His	Asn	Phe	Val	Ser	Gly	Ala	Val	Val	Thr	Ala	Val	Glu	Trp	Gly
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Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe
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Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser
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	210					215					220				
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Val	Leu	Tyr	Ala	Arg	His	Tyr	Asn	Ile	Pro	Val	Ile	His	Ala	Phe	Arg
			245						250					255	
Arg	Ala	Val	Asp	Asp	Pro	Gly	Leu	Val	Phe	Asn	Gln	Leu	Pro	Lys	Met
			260					265					270		
Leu	Tyr	Pro	Glu	Tyr	His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser
		275					280					285			
Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His
	290					295					300				
Gln	Leu	Leu	Cys	Phe	Lys	Glu	Asp	Cys	Gln	Ala	Val	Phe	Gln	Asp	Leu
305					310					315				320	
Glu	Gly	Val	Glu	Lys	Val	Phe	Gly	Val	Ser	Leu	Val	Leu	Val	Leu	Ile
			325						330					335	
Gly	Ser	His	Pro	Asp	Leu	Ser	Phe	Leu	Pro	Gly	Ala	Gly	Ala	Asp	Phe
			340					345					350		
Ala	Val	Asp	Pro	Asp	Gln	Pro	Leu	Ser	Ala	Lys	Arg	Asn	Pro	Ile	Asp

	355		360		365										
Val	Asp	Pro	Phe	Thr	Tyr	Gln	Ser	Thr	Arg	Gln	Glu	Gly	Leu	Tyr	Ala
	370					375				380					
Met	Gly	Pro	Leu	Ala	Gly	Asp	Asn	Phe	Val	Arg	Phe	Val	Gln	Gly	Gly
385					390					395				400	
Ala	Leu	Ala	Val	Ala	Ser	Ser	Leu	Leu	Arg	Lys	Glu	Thr	Arg	Lys	Pro
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Pro															

<210> 4231

<211> 1588

<212> DNA

<213> Homo sapiens

<400> 4231

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 300
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 360
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 420
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 1140

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<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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Glu	Glu	Lys	Lys	Ile	Leu	Ala	Ile	Glu	Leu	Glu	Asn	Leu	Lys	Ser	Lys
		35					40					45			
Leu	Val	Glu	Val	Ile	Glu	Glu	Val	Asn	Lys	Val	Lys	Gln	Glu	Lys	Thr
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Val	Leu	Asn	Ser	Glu	Val	Leu	Glu	Gln	Arg	Lys	Val	Leu	Glu	Lys	Cys
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Asn	Arg	Val	Ser	Met	Leu	Ala	Val	Glu	Glu	Tyr	Glu	Glu	Met	Gln	Val
				85					90					95	
Asn	Leu	Glu	Leu	Glu	Lys	Asp	Leu	Arg	Lys	Lys	Ala	Glu	Ser	Phe	Ala
			100					105						110	
Gln	Glu	Met	Phe	Leu	Glu	Pro	Asn	Gln	Gly	Lys	Lys	Thr	Lys	Pro	Pro
		115						120					125		
Phe	Gly	Arg	Gln	Ser	Ser	Ile	Leu	Asp	Gln	Gln	Leu	Ala	Leu	Asp	Glu
	130					135					140				
Asn	Ala	Lys	Leu	Thr	Gln	Gln	Leu	Glu	Glu	Glu	Arg	Ile	Gln	His	Gln
145				150						155				160	
Gln	Lys	Val	Lys	Glu	Leu	Glu	Glu	Gln	Leu	Glu	Asn	Glu	Thr	Leu	His
			165					170						175	
Lys	Glu	Ile	His	Asn	Leu	Lys	Gln	Gln	Leu	Glu	Leu	Leu	Glu	Glu	Asp
		180						185					190		
Lys	Lys	Glu	Leu	Glu	Leu	Lys	Tyr	Gln	Asn	Ser	Glu	Glu	Lys	Ala	Arg
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		210				215					220				
Glu	Asn	Ser	Val	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro
225				230						235				240	
Pro	Pro	Pro	Asn	Pro	Ile	Arg	Ser	Leu	Met	Ser	Met	Ile	Arg	Lys	Arg

245										250				255			
Ser	His	Pro	Ser	Gly	Ser	Gly	Ala	Lys	Lys	Glu	Lys	Ala	Thr	Gln	Pro		
260				265				270									
Glu	Thr	Thr	Glu	Glu	Val	Thr	Asp	Leu	Lys	Arg	Gln	Ala	Val	Glu	Glu		
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Met	Met	Asp	Arg	Ile	Lys	Lys	Gly	Val	His	Leu	Arg	Pro	Val	Asn	Gln		
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Thr	Ala	Arg	Pro	Lys	Thr	Lys	Pro	Glu	Ser	Ser	Lys	Gly	Cys	Glu	Ser		
305				310				315				320					
Ala	Val	Asp	Glu	Leu	Lys	Gly	Ile	Leu	Gly	Thr	Leu	Asn	Lys	Ser	Thr		
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Ser	Ser	Arg	Ser	Leu	Lys	Ser	Leu	Asp	Pro	Glu	Asn	Ser	Glu	Thr	Glu		
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Leu	Glu	Arg	Ile	Leu	Arg	Arg	Arg	Lys	Val	Thr	Ala	Glu	Ala	Asp	Ser		
355				360				365									
Ser	Ser	Pro	Thr	Gly	Ile	Leu	Ala	Thr	Ser	Glu	Ser	Lys	Ser	Met	Pro		
370				375				380									
Val	Leu	Gly	Ser	Val	Ser	Ser	Val	Thr	Lys	Thr	Ala	Leu	Asn	Lys	Lys		
385				390				395				400					
Thr	Leu	Glu	Ala	Glu	Phe	Asn	Ser	Pro	Ser	Pro	Pro	Thr	Pro	Glu	Pro		
405				410				415									
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<211> 2827

<212> DNA

<213> Homo sapiens

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120	cctatgtact	ctctggatcg	aatatttgct	ggatttcgaa	cacgaagtca	gatgctggtg
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420	ttgcaaaaat	taaagaattc	agaacgcata	cttactgaag	ccaaacaaaa	aatgagagaa
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2160
cagccaaatc ctcaaagct ctgggaagat atcccagaat tacctccaat tcatagttct
2220
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2280

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 2400
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 2460
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 2580
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 2640
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 2820
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 2827

<210> 4234

<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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	20						25					30			
Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
	35						40					45			
Phe	Ala	Gly	Phe	Arg	Thr	Arg	Ser	Gln	Met	Leu	Leu	Gly	His	Ile	Glu
	50					55				60					
Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
65					70				75					80	
Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85						90					95	
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
	100							105					110		
Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
	115						120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
	130					135					140				
Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
145					150				155					160	
Leu	Thr	Val	Asn	Ile	Lys	Met	Lys	Glu	Asp	Leu	Ile	Lys	Glu	Leu	Ile
			165					170					175		
Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
	180						185					190			
Val	Thr	Lys	Leu	Glu	His	Asp	Ala	Glu	Gln	Ala	Lys	Val	Glu	Leu	Thr
	195					200					205				
Glu	Thr	Gln	Lys	Gln	Leu	Gln	Glu	Leu	Glu	Asn	Lys	Asp	Leu	Ser	Asp

210	215	220
Val Ala Met Lys Val Lys Leu Gln Lys Glu Phe Arg Lys Lys Val Asp		
225	230	235
Ala Ala Lys Leu Arg Val Gln Val Leu Gln Lys Lys Gln Gln Asp Ser		240
	245	250
Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Glu Lys Arg Ala Asn Glu		255
	260	265
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln		270
	275	280
Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val		285
	290	295
Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly		300
305	310	315
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		320
	325	330
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys		335
	340	345
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu		350
	355	360
Asn Gln Arg Gln Glu Leu Glu Glu Leu Glu Ala Asp Leu Lys Lys Arg		365
	370	375
Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His		380
385	390	395
Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser		400
	405	410
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu		415
	420	425
Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile		430
	435	440
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys		445
	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		460
465	470	475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala		480
	485	490
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln		495
	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		525
	530	535
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg		540
545	550	555
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		560
	565	570
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		575
	580	585
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		590
	595	600
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile		605
	610	615
Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys		620
625	630	635
Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu		640

645 650 655
 Lys Glu Leu Val Gly Glu Ala Ile Arg Arg Gln Leu Ala Ser Ser Glu
 660 665 670
 Tyr Gln Glu Ala Gly Asp Gly Val Leu Lys Pro Glu Gly Gly Gly Met
 675 680 685
 Leu Ser Glu Glu Leu Lys Trp Ala Ser Arg Pro Glu Ser Met Lys Leu
 690 695 700
 Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr
 705 710 715 720
 Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro
 725 730 735
 Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu
 740 745 750
 Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg
 755 760 765
 Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly
 770 775 780
 Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala
 785 790 795 800
 Leu Glu Leu Ser Leu Arg Arg Ser Ser Leu Gly Val Gly Ile Gly Ser
 805 810 815
 Met Ala Ala Asp Ser Ile Glu Val Ser Arg Lys Pro Arg Asp Leu Lys
 820 825 830
 Thr

<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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 120
 gctattgggc tctcatttac aacttcaacg actaccacg ccactttcac caccaacact
 180
 actaccacaa tcaccagtgg ctttactgtg aacaaaaacc aactgttatc aagaggggtt
 240
 gaaaaccttg taccttatac ttcaactgtt agtgtagtag caactcctgt gatgacatat
 300
 ggtcatctgg agggctttat aaatgagtgg aaccttgagc tggaagatca agagaagtac
 360
 tttcttctcc aggcactca ggtcaatgct tgggaccata cattgattga gaatggtag
 420
 atgattcgta ttttacatgg agaagtgaac aaagtgaac tggatcagaa aagattggaa
 480
 caagaattgg atttatcct gtcacagcag caggaactag aatttctgtt gacttattta
 540
 gaggagtcta cgcgtgacca gactggactt cattatctgc aggatgcaga tgaggagcat
 600
 gtggagatct ccaccagatc tgcagaattc tgaatgccca tatggactcc ctgcagtgga
 660

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 720
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 780
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 840
 tataacttaat atttcatctt gatcataatg aattgtgcat cctttttttc atttaagtat
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 960
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 971

<210> 4236

<211> 198

<212> PRT

<213> Homo sapiens

<400> 4236

Ala	Pro	Thr	Ala	Ala	Val	Ala	Thr	Thr	Thr	Ser	Ser	Ser	Thr	Met	Gln
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Phe	Thr	Ser	Ile	Ser	Asn	Ser	Leu	Thr	Ser	Thr	Ala	Ala	Ile	Gly	Leu
			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr
		35					40					45			
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
	50					55					60				
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
65					70					75				80	
Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
				85					90					95	
Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
			100					105					110		
Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
		115					120						125		
Met	Ile	Arg	Ile	Leu	His	Gly	Glu	Val	Asn	Lys	Val	Lys	Leu	Asp	Gln
	130					135					140				
Lys	Arg	Leu	Glu	Gln	Glu	Leu	Asp	Phe	Ile	Leu	Ser	Gln	Gln	Gln	Glu
145					150					155				160	
Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165						170					175	
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
		180						185						190	
Thr	Arg	Ser	Ala	Glu	Phe										
				195											

<210> 4237

<211> 560

<212> DNA

<213> Homo sapiens

<400> 4237

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 120
 aattgtctcg ccagtgtcag gagcaggtac cggcattcct ggccatcctc ttcaccctcc
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 240
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 ggccgaggca tgccttgtt ccaagggctt tccaacatcg ccttcaactg tgagttagcc
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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

Trp	Ala	Gln	Ala	Ser	Glu	Asn	Cys	Leu	Ala	Ser	Val	Arg	Ser	Arg	Tyr
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Arg	His	Ser	Trp	Pro	Ser	Ser	Ser	Pro	Ser	Pro	His	Arg	Phe	Ser	Phe
			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
		35					40					45			
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
	50					55					60				
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65					70				75					80	
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
			85					90						95	
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
		100					105						110		
Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Glu				
		115					120								

<210> 4239

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 4239

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 aagaccagca aaaagttcaa gttcttcaag ttcaagggtt ttgggagtct ctccaacctc
 180

cctcggctcct tcactctgag acgatacctca gcttccatca gtaggcagtc ccatttggag
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480
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1800

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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

Met Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys

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Arg Arg Ser Ser Ala Ser Ile Ser Arg Gln Ser His Leu Glu Pro Asp
35           40           45
Thr Phe Glu Ala Thr Gln Asp Asp Met Val Thr Val Pro Lys Ser Pro
50           55           60
Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met
65           70           75           80
Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln
85           90           95
Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro
100          105          110
Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr
115          120          125
Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val
130          135          140
Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu
145          150          155          160
Glu Glu Arg Pro Pro Arg Asp Val His Ser Glu Arg Ala Ala Gly Glu
165          170          175          175
Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile
180          185          190          190
Leu Asp Ser Ser Pro Glu Lys Leu His Lys Glu Leu Glu Glu Leu
195          200          205
Lys Leu Ser Ser Thr Asp Leu Arg Ser His Ala Trp Tyr His Gly Arg
210          215          220
Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe
225          230          235          240
Leu Ile Arg Asp Ser Leu Thr Ser Leu Gly Asp Tyr Val Leu Thr Cys
245          250          255          255
Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val
260          265          270          270
Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu
275          280          285          285
Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg
290          295          300          300
Lys Ala Val Ser Glu Gln Ser Gly Ala Ile Ile Tyr Cys Pro Val Asn
305          310          315          320
Arg Thr Phe Pro Leu Arg Tyr Leu Glu Ala Ser Tyr Gly Leu Gly Gln
325          330          335          335
Gly Ser Ser Lys Pro Ala Ser Pro Val Ser Pro Ser Gly Pro Lys Gly
340          345          350          350
Ser His Met Lys Arg Arg Ser Val Thr Met Thr Asp Gly Leu Thr Ala
355          360          365          365
Asp Lys Val Thr Arg Ser Asp Gly Cys Pro Thr Ser Thr Ser Leu Pro
370          375          380          380
Arg Pro Arg Asp Ser Ile Arg Ser Cys Ala Leu Ser Met Asp Gln Ile
385          390          395          400
Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser
405          410          415          415
Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro
420          425          430          430
Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Cys Ser Ser Glu

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435 440 445
 Pro Gln Leu Cys Pro Gly Ser Ala Pro Lys Thr His Gly Glu Ser Asp
 450 455 460
 Lys Gly Pro His Thr Ser Pro Ser His Thr Leu Gly Lys Ala Ser Pro
 465 470 475 480
 Ser Pro Ser Leu Ser Ser Tyr Ser Asp Pro Asp Ser Gly His Tyr Cys
 485 490 495
 Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu
 500 505 510
 Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu
 515 520 525
 Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val
 530 535 540
 Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser
 545 550 555 560
 Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg
 565 570 575
 Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg
 580 585 590
 His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr
 595 600 605
 Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu
 610 615 620
 Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe
 625 630 635 640
 His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly
 645 650 655
 Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala
 660 665 670
 Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val
 675 680 685
 Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp
 690 695 700
 Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys
 705 710 715 720
 Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro
 725 730 735
 Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu
 740 745 750
 Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser
 755 760 765
 Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg
 770 775 780
 Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys
 785 790 795 800
 Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr
 805 810 815
 Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser
 820 825 830
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 <213> Homo sapiens

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 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
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 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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<210> 4243
 <211> 3159
 <212> DNA
 <213> Homo sapiens

<400> 4243

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 Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
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 Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
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 Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
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 Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
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 Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
 225 230 235 240
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 245 250 255
 Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
 260 265 270
 Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
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 Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
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 Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
 305 310 315 320
 Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
 325 330 335
 Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
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 Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
 355 360 365
 Val Ser Gly Ser Thr Asp Gly Leu Val Asp Ser Ala Gly Thr Gly Asp

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Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu
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Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys
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Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr
465              470              475              480
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Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His
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Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile
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Val Ile Phe Phe Ser Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr
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Ala Phe Trp Ile Val Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu
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Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly
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Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln
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Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly
705              710              715              720
Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro
      725              730              735
Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu
      740              745              750
Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg
      755              760              765
Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp
      770              775              780
Gly Phe Ala Leu Phe Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys
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[illegible]

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<213> Homo sapiens
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<212> PRT
<213> Homo sapiens
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<400> 4246
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Gly	Arg	Gln	Leu	Gln	Ala	Ala	Glu	Glu	Ala	Val	Glu	Lys	Leu
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Thr	Gln	Ala	Asp	Met	Gly	Glu	Lys	Leu	Ser	Cys	Thr	Ser	Asn
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Ala	Glu	Cys	Gln	Ala	Ala	Met	Leu	Arg	Lys	Asp	Lys	Glu	Gly
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Thr	Ser	Gln	Gly	Glu	Leu	Ser	Pro	Ala	Leu	Ser	Pro	Ala	Ser
		260						265				270	
Pro	Gln	Ala	Thr	Gly	Gly	Gln	Gly	Ala	Asn	Thr	Asp	Tyr	Arg
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<210> 4247

<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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<210> 4248

<211> 1297

<212> PRT

<213> Homo sapiens

<400> 4248

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Ala	Pro	Ser	Pro	Leu	Pro	Leu	His	Thr	His	Ala	Arg	Ser	Leu	Ala	Gly
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Ala	Arg	Thr	Pro	Pro	Ala	Pro	Asp	Pro	His	Leu	Gly	Gly	Arg	His	Thr
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Leu	Gly	Ser	Pro	Ser	Arg	Gly	Ser	Arg	Ser	Gly	Met	Glu	Ala	Ala	Arg
65				70				75						80	
Thr	Glu	Arg	Pro	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Leu	Val	Arg	Thr	Gly
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Leu	Leu	Leu	Leu	Ser	Thr	Trp	Val	Leu	Ala	Gly	Ala	Glu	Ile	Thr	Trp
			100					105					110		
Asp	Ala	Thr	Gly	Gly	Pro	Gly	Arg	Pro	Ala	Ala	Pro	Ala	Ser	Arg	Pro
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Pro	Ala	Leu	Ser	Pro	Leu	Ser	Pro	Arg	Ala	Val	Ala	Ser	Gln	Trp	Pro
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Glu	Glu	Leu	Ala	Ser	Ala	Arg	Arg	Ala	Ala	Val	Leu	Gly	Arg	Arg	Ala
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Gly	Pro	Glu	Leu	Leu	Pro	Gln	Gln	Gly	Gly	Arg	Gly	Gly	Glu	Met	
			165					170					175		
Gln	Val	Glu	Ala	Gly	Gly	Thr	Ser	Pro	Ala	Gly	Glu	Arg	Arg	Gly	Arg
		180				185					190				
Gly	Ile	Pro	Ala	Pro	Ala	Lys	Leu	Gly	Gly	Ala	Arg	Arg	Ser	Arg	Arg
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Pro Ala Asp Gly Ser	Arg Gly Ser Arg Pro	Leu Ala Lys Gly Ser Arg
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Glu Glu Val Lys Ala	Pro Arg Ala Gly Gly	Ser Ala Ala Glu Asp Leu
245	250	255
Arg Leu Pro Ser Thr	Ser Phe Ala Leu Thr	Gly Asp Ser Ala His Asn
260	265	270
Gln Ala Met Val His	Trp Ser Gly His Asn	Ser Ser Val Ile Leu Ile
275	280	285
Leu Thr Lys Leu Tyr	Asp Phe Asn Leu Gly	Ser Val Thr Glu Ser Ser
290	295	300
Leu Trp Arg Ser Thr	Asp Tyr Gly Thr Thr	Tyr Glu Lys Leu Asn Asp
305	310	315
Lys Val Gly Leu Lys	Thr Val Leu Ser Tyr	Leu Tyr Val Asn Pro Thr
325	330	335
Asn Lys Arg Lys Ile	Met Leu Leu Ser Asp	Pro Glu Met Glu Ser Ser
340	345	350
Ile Leu Ile Ser Ser	Asp Glu Gly Ala Thr	Tyr Gln Lys Tyr Arg Leu
355	360	365
Thr Phe Tyr Ile Gln	Ser Leu Leu Phe His	Pro Lys Gln Glu Asp Trp
370	375	380
Val Leu Ala Tyr Ser	Leu Asp Gln Lys Leu	Tyr Ser Ser Met Asp Phe
385	390	395
Gly Arg Arg Trp Gln	Leu Met His Glu Arg	Ile Thr Pro Asn Arg Phe
405	410	415
Tyr Trp Ser Val Ala	Gly Leu Asp Lys Glu	Ala Asp Leu Val His Met
420	425	430
Glu Val Arg Thr Thr	Asp Gly Tyr Ala His	Tyr Leu Thr Cys Arg Ile
435	440	445
Gln Glu Cys Ala Glu	Thr Thr Arg Ser Gly	Pro Phe Ala Arg Ser Ile
450	455	460
Asp Ile Ser Ser Leu	Val Val Gln Asp Glu	Tyr Ile Phe Ile Gln Val
465	470	475
Thr Thr Ser Gly Arg	Ala Ser Tyr Tyr Val	Ser Tyr Arg Arg Glu Ala
485	490	495
Phe Ala Gln Ile Lys	Leu Pro Lys Tyr Ser	Leu Pro Lys Asp Met His
500	505	510
Ile Ile Ser Thr Asp	Glu Asn Gln Val Phe	Ala Ala Val Gln Glu Trp
515	520	525
Asn Gln Asn Asp Thr	Tyr Asn Leu Tyr Ile	Ser Asp Thr Arg Gly Ile
530	535	540
Tyr Phe Thr Leu Ala	Met Glu Asn Ile Lys	Ser Ser Arg Gly Leu Met
545	550	555
Gly Asn Ile Ile Ile	Glu Leu Tyr Glu Val	Ala Gly Ile Lys Gly Ile
565	570	575
Phe Leu Ala Asn Lys	Lys Val Asp Asp Gln	Val Lys Thr Tyr Ile Thr
580	585	590
Tyr Asn Lys Gly Arg	Asp Trp Arg Leu Leu	Gln Ala Pro Asp Val Asp
595	600	605
Leu Arg Gly Ser Pro	Val His Cys Leu Leu	Pro Phe Cys Ser Leu His
610	615	620
Leu His Leu Gln Leu	Ser Glu Asn Pro Tyr	Ser Ser Gly Arg Ile Ser
625	630	635
Ser Lys Glu Thr Ala	Pro Gly Leu Val Val	Ala Thr Gly Asn Ile Gly

645														650				655			
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Gly	Asn	Thr	Trp	Arg	Gln	Ile	Phe	Asp	Glu	Glu	Tyr	Asn	Val	Trp	Phe						
675														680				685			
Leu	Asp	Trp	Gly	Gly	Ala	Leu	Val	Ala	Met	Lys	His	Thr	Pro	Leu	Pro						
690														695				700			
Val	Arg	His	Leu	Trp	Val	Ser	Phe	Asp	Glu	Gly	His	Ser	Trp	Asp	Lys						
705														710				715			
Tyr	Gly	Phe	Thr	Ser	Val	Pro	Leu	Phe	Val	Asp	Gly	Ala	Leu	Val	Glu						
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Ala	Gly	Met	Glu	Thr	His	Ile	Met	Thr	Val	Phe	Gly	His	Phe	Ser	Leu						
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Arg	Ser	Glu	Trp	Gln	Leu	Val	Lys	Val	Asp	Tyr	Lys	Ser	Ile	Phe	Ser						
755														760				765			
Arg	His	Cys	Thr	Lys	Glu	Asp	Tyr	Gln	Thr	Trp	His	Leu	Leu	Asn	Gln						
770														775				780			
Gly	Glu	Pro	Cys	Val	Met	Gly	Glu	Arg	Lys	Ile	Phe	Lys	Lys	Arg	Lys						
785														790				795			
Pro	Gly	Ala	Gln	Cys	Ala	Leu	Gly	Arg	Asp	His	Ser	Gly	Ser	Val	Val						
800														805				810			
Ser	Glu	Pro	Cys	Val	Cys	Ala	Asn	Trp	Asp	Phe	Glu	Cys	Asp	Tyr	Gly						
820														825				830			
Tyr	Glu	Arg	His	Gly	Glu	Ser	Gln	Cys	Val	Pro	Ala	Phe	Trp	Tyr	Asn						
835														840				845			
Pro	Ala	Ser	Pro	Ser	Lys	Asp	Cys	Ser	Leu	Gly	Gln	Ser	Tyr	Leu	Asn						
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Ser	Thr	Gly	Tyr	Arg	Arg	Ile	Val	Ser	Asn	Asn	Cys	Thr	Asp	Gly	Leu						
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Arg	Glu	Lys	Tyr	Thr	Ala	Lys	Ala	Gln	Met	Cys	Pro	Gly	Lys	Ala	Pro						
885														890				895			
Arg	Gly	Leu	His	Val	Val	Thr	Thr	Asp	Gly	Arg	Leu	Val	Ala	Glu	Gln						
900														905				910			
Gly	His	Asn	Ala	Thr	Phe	Ile	Ile	Leu	Met	Glu	Glu	Gly	Asp	Leu	Gln						
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Arg	Thr	Asn	Ile	Gln	Leu	Asp	Phe	Gly	Asp	Gly	Ile	Ala	Val	Ser	Tyr						
930														935				940			
Ala	Asn	Phe	Ser	Pro	Ile	Glu	Asp	Gly	Ile	Lys	His	Val	Tyr	Lys	Ser						
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Ala	Gly	Ile	Phe	Gln	Val	Thr	Ala	Tyr	Ala	Glu	Asn	Asn	Leu	Gly	Ser						
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Glu	Tyr	Phe	Gln	Ser	Gln	Leu	Leu	Ser	Phe	Ser	Pro	Asn	Leu	Asp	Tyr						

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 1090 1095 1100
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 1105 1110 1115 1120
 Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu
 1125 1130 1135
 Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu
 1140 1145 1150
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 1155 1160 1165
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 1170 1175 1180
 Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser
 1185 1190 1195 1200
 Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe
 1205 1210 1215
 Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala
 1220 1225 1230
 Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln
 1235 1240 1245
 Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
 1250 1255 1260
 Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
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 <211> 553
 <212> DNA
 <213> Homo sapiens

<400> 4249
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 180
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 420
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<212> PRT
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<400> 4250
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35 40 45
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly
50 55 60
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
65 70 75 80
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
85 90 95
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
100 105 110
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu
115 120 125
Gly Gly Ser Arg Val Ser Ser Gln His Phe Gly Arg Leu Arg Gln Glu
130 135 140
Asp Arg Leu Ser Pro Gly Val Gln Asp Gln Pro Gly Pro His Ser Glu
145 150 155 160
Thr Pro Ile Ser

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<211> 1574
<212> DNA
<213> Homo sapiens

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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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Pro	Asp	Ile	Thr	Lys	Arg	Tyr	Leu	Arg	Leu	Thr	Cys	Ala	Pro	Asp	Pro
		35				40					45				
Ser	Thr	Val	Arg	Pro	Val	Ala	Val	Leu	Lys	Lys	Ser	Leu	Cys	Met	Val
	50				55				60						
Lys	Cys	His	Trp	Lys	Glu	Lys	Gln	Asp	Tyr	Ala	Phe	Ala	Cys	Glu	Gln

65		70		75		80									
Met	Lys	Ser	Ile	Arg	Gln	Asp	Leu	Thr	Val	Gln	Gly	Ile	Arg	Thr	Glu
			85						90					95	
Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
		100						105					110		
Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
		115					120					125			
Tyr	Ala	Glu	Asn	Leu	Pro	Gly	Asn	Val	Gly	Glu	Phe	Thr	Ala	Tyr	Arg
	130					135					140				
Ile	Leu	Tyr	Tyr	Ile	Phe	Thr	Lys	Asn	Ser	Gly	Asp	Ile	Thr	Thr	Glu
145					150					155					160
Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
			165					170						175	
Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
		180						185					190		
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
	195						200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
	210					215					220				
Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235					240
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
			245					250						255	
Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260						265					270		
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
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Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290					295				300					
Ala	Ser	Gly	Ala	Ser	Ser	Pro	Pro	His	Leu	Cys	Val	Ser	Ser	Ser	Cys
305					310					315					320
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325					330						335	
Arg	Thr	Leu	Arg	Ser	Leu	Leu	Ser	Gln	Leu	Val	Ala	Val	Leu	Pro	Pro
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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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120

gtttccttgt ggggtggaggg tactttcccg ccccttggtt tcgggcttgc ccacgtggct

180

tgctctggcc atggaatgaa gcagaaacga aagcctgcc gttctgagcc tatgccggaa

240

gacgccttgg gcgggtccgc ggtccctgtg cgcttccacc ttcaccaga aggacttctc

300

tggtgcagcc gctgcttctt cagccacggc ccaaaaggat cggagccccc tggccgatcc

360

gcaggtctgc agggagccac agagcgagc ggccggccca gcgttcaagc ccaagcacag
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 480
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 600
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<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
	20						25				30				
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
	35					40				45					
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
	50				55					60					
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65				70				75						80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90					95		
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Asp	Gly														

<210> 4255
<211> 2205
<212> DNA
<213> Homo sapiens

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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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			20					25				30			
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		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50					55				60					
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65					70					75				80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
			85					90					95		
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
		100					105					110			
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115					120					125			
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
	130					135					140				
His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

145				150				155				160			
His	Ile	Thr	His	Lys	Glu	Pro	Leu	Val	Ala	Asn	Asp	Ile	Leu	Asn	His
				165				170					175		
Pro	Asn	Phe	Val	Lys	Lys	Asn	Leu	Cys	Asn	Ser	Phe	Ser	Asp	Arg	Thr
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His	Arg	Met	Glu	Gln	Asn	Glu	Cys	Glu	Cys	Pro	Cys	Glu	Cys	Pro	Leu
			260					265					270		
Glu	Val	Asn	Glu	Cys	Thr	Gly	Asn	Leu	Thr	Asn	Ala	Glu	Asn	Arg	Asn
	275					280						285			
Pro	Ser	Cys	Glu	Val	His	Gln	Glu	Pro	Val	Thr	Tyr	Thr	Ala	Ile	Asp
	290					295					300				
Pro	Gly	Leu	Gln	Asp	Ala	Leu	His	Gln	Cys	Val	Asn	Ser	Arg	Cys	Ser
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Gln	Arg	Leu	Glu	Ser	Gly	Asp	Cys	Phe	Gly	Val	Leu	Asp	Cys	Glu	Trp
			325						330					335	
Cys	Met	Val	Asp	Ser	Asp	Gly	Lys	Thr	His	Leu	Asp	Lys	Pro	Tyr	Cys
			340					345					350		
Ala	Pro	Gln	Lys	Glu	Cys	Phe	Gly	Gly	Ile	Val	Gly	Ala	Lys	Ser	Pro
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Tyr	Val	Asp	Asp	Met	Gly	Ala	Ile	Gly	Asp	Glu	Val	Ile	Thr	Leu	Lys
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

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			20					25					30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
			35				40					45			
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
		50				55					60				
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
				70					75					80	
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
				85				90						95	
Tyr	Gln	Gly	Leu	Leu	Leu	Gln	Arg	Val	Pro	Phe	Asn	Val	Asp	Phe	Asp

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<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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<400> 4260

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          20           25           30
Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile
          35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
          50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
65           70           75           80
Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
          85           90           95
Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
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<212> DNA

<213> Homo sapiens

<400> 4261

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<210> 4262

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4262

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<212> DNA
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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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Asp	Asn	Tyr	Met	Glu	Ile	Leu	Asn	Arg	Glu	Asn	His	Ile	Glu	Arg	Phe
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<210> 4265

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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<211> 2230

<212> DNA

<213> Homo sapiens

<400> 4267

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<400> 4268

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<213> Homo sapiens

<400> 4270

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 ttaccctttt cactcttggc tttcttatgt tgctttcatg aatggaatgg aaaaaagatg
 2040
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

Met	Ala	Leu	Gly	Lys	Leu	Leu	Leu	His	Ser	Gly	Arg	Met	Ser	Ser	Gly
1				5					10					15	
Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
			50				55				60				
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70					75				80	
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90						95	
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
			115					120				125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
			130				135					140			
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145					150					155				160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170					175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180					185					190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
			195				200					205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
			210				215					220			
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

atgcaggtgg ccctgggtgc acatctacga gatgccaggc gcgggcagag gctccgctca
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 ggggcgcacg tagtgggtcac tggaccccc aatgcgggca agagcagcct agtgaacctg
 120
 ctcagtcgga agcctgtgtc catcgtgtcc ccggagccag ggaccacccg tgacgtgctg
 180
 gagacccag tcgacctggc cggatttcct gtgctgctga gcgacacggc tgggttgctg
 240
 gagggcgctg ggcccgtgga gcaggagggc gtgcggcgcg cccgggagag gctagagcag
 300
 gctgacctca ttctggccat gctggatgct tctgacctgg cctctccctc cagttgcaac
 360
 ttcttgccca ccgtcgtagc ctctgtggga gccagagcc ccagtgcag cagccagcgc
 420
 ctctcctcgg tgctgaacaa gtcggacctg ctgtccccgg agggcccagg tcccggctct
 480
 gacctgcccc cgcacctgct gctgtcctgt ctgacgggag aggggctgga cggcctcctg
 540
 gaggcgctga ggaaggagct agctgcagtg tgtggggacc cgtccacaga tccccgctg
 600
 ctgaccgag caaggcacca gcaccacctc cagggttgcc tggatgccct cggccactac
 660
 aagcagtcaa aagacctggc cctggcgga gaggcgctgc gggtgggccg gggtcacctg
 720
 acccggtca caggtggagg gggtagcgag gagatcctgg acatcatctt ccaggacttc
 780
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 840
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 874

<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln
 1 5 10 15
 Arg Leu Arg Ser Gly Ala His Val Val Thr Gly Pro Pro Asn Ala
 20 25 30
 Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
 35 40 45
 Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
 50 55 60
 Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

```

65          70          75          80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu
      85          90          95
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
      100          105          110
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115          120          125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val
      130          135          140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145          150          155          160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165          170          175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
      180          185          190
Asp Pro Ser Thr Asp Pro Pro Leu Leu Thr Arg Ala Arg His Gln His
      195          200          205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210          215          220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
225          230          235          240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile
      245          250          255
Phe Gln Asp Phe Cys Val Gly Lys
      260

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<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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cccgcctgcg ccgccccctt ccgcgggtcc ggagttggcg gggccctgcg ccggaggagg
120
aggaccaggc ccgcgggctc agctctcgcc gccagcgggc cgcagcattt ttgaaacgtt
180
ggggttggtg gagtgggttg attttcctg gaattgagt agaaattcag aagactgaag
240
cccaggctta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
300
tggcgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
360
gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgaaga ttcaaggcca
420
cgccggagct gtaccttga aggaggagcc aaaaattatg ctgagagtga tcacagtga
480
gacgaggaca atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
540
aaaccaccga aaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
600
atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga ggtcggagg
660

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ccaaacacac cgtatttcat ctgtagcatt caagacttca aactgggtcca caactcccag
 720
 gcctgttgca gatctccaac tcctgctttg tgtgaccccc cagcatgctc tctgccggtg
 780
 gcatcacagc caccacagca tctttctgaa gccgggagag ggctgtagg gagtaagagg
 840
 gaccatctcc tcatgaacgt caaatggtac taccgtcaat ctgagggtcc agattctgtg
 900
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt
 960
 acagaccag ttatcaagaa ccgagagctc ttcatttctg attacgttga cacttaccat
 1020
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 1070

<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

Met	Thr	Ala	Asp	Lys	Asp	Lys	Asp	Lys	Asp	Lys	Glu	Lys	Asp	Arg	Asp	1	5	10	15
Arg	Asp	Arg	Asp	Arg	Glu	Arg	Glu	Lys	Arg	Asp	Lys	Ala	Arg	Glu	Ser	20	25	30	
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys	35	40	45	
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn	50	55	60	
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro	65	70	75	80
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser	85	90	95	
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr	100	105	110	
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln	115	120	125	
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr	130	135	140	
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln	145	150	155	160
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys	165	170	175	
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu	180	185	190	
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu	195	200	205	
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn	210	215	220	
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala	225	230	235	240
Leu	Arg	Gly	Lys	Cys	Asn	Ile	Leu	His	Phe	Ser	Asp	Ile				245	250		

<210> 4279
<211> 1963
<212> DNA
<213> Homo sapiens

<400> 4279
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120
gcaatggccc tgagagacac cgaggacaag ctacgtcggg gcccgaagag gaggaaggac
180
atccttgacag agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac
300
tggtctgtgc gcgtctgcct gcggaccatt gagcacggtg atcgcacagg gtctctcttt
360
gccttcatgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat
420
tactttggtc ccgtgcacag catggaggag ctcccaggct atgaagagac cctgacccgc
480
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540
gactcactga tgcaggccct ggccagctac gtgtgctacc cacactccct gcgggctgtg
600ccgaggagca gcgtatcgcc atggtgagga acctcctggc gccctatgag 660
cagcggccct gggcccagac caactggatc ctggtgcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
cccagcctcc agaagccctg cccttcacc ctgctgcagc agcacatggc ggacctccta
840
cagcagggtc ctgatgtggc acccagcttc ctcaacagcg tcctcaatca gctcaactgg
900
gccttctctg aattcattgg catgatccaa gagatccagc aggtctgctga gcgcctggag
960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
agcctgctgc gtgtcttgga gatgactatc acactgggtgc ctgagatatt ccttgactgg
1080
acctggccta cctctgagat gctgctggg cgtcttgac agctgctaaa ccagggtgctg
1140
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcacctacg gctgcctggc
1200
ctagagagcg tggaccacta tcccattctg gtggcagtga cgggcatcct ggtgcagctc
1260
ctggtgcgtg gccagcctc agagagagag caagccacat cagtgtcctt ggcagatccc
1320
tgcttcagc tacgtcaat atgctatctc ctgggacagc cagagcccc agcacctggc
1380
actgctctgc cagcccctga ccggaagcgc ttctccctgc agagctatgc ggattatatc
1440
agtgcgatg agctggccca agtggaaacag atgctggcgc acctgacctc tgcactgccc
1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgccccat ctgctatgcc
 1560
 caccatct ctgctgtgtt ccagccctgt ggccacaagt cctgcaaagc ctgtatcaac
 1620
 cagcacctga tgaacaacaa ggactgcttc ttctgcaaaa ccaccatcgt gtctgtagag
 1680
 gactgggaga agggagccaa tacgagtact acctcctcag ctgcctagcc ctcacagcct
 1740
 gtgccatcct ggaacctcca cctttgaacc cagagccagg ctggggcccta tttatgagct
 1800
 ccctttgccc ttctcctgta tccacacca ccacatccaa cctccttgcc tgcctgtatc
 1860
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 1920
 ccacagtgag cattaaatta ttattccata caaaaaaaaaaaa aaa
 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

Arg	Pro	Leu	Thr	Glu	Asn	Ser	Leu	Leu	Glu	Val	Leu	Asp	Gly	Thr	Val
1				5					10					15	
Met	Met	Tyr	Ser	Leu	Ser	Val	His	Gln	Gln	Leu	Gly	Lys	Met	Val	Gly
		20						25					30		
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50				55					60					
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65					70					75				80	
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
				85					90					95	
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100						105					110		
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
		115					120					125			
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
		130				135					140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145					150					155				160	
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
				165					170					175	
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
			180					185					190		
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Gln	Gln	Arg
		195					200					205			
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
		210				215					220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225					230					235				240	
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu

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<210> 4281
<211> 507
<212> DNA
<213> Homo sapiens
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3485

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 300
 tcaggcatgg atgcaggtagg aatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tggctctacag atgagtgggc tccagtctca aatgaggaga acaaataggg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct gggtgatata gctccctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

Met	Asn	Ala	Leu	Thr	Asp	Pro	Leu	Ser	Phe	Pro	Pro	Ala	Ser	Met	Pro
1				5					10					15	
Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20					25					30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
		35				40					45				
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
	50				55					60					
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65				70						75				80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85					90						95	
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

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 120
 gggagaaacc gagtccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag
 240
 cctcattcct gcccgactc cgccaaactg ctcgccctgc ccagcgagc ggatgcagcg
 300
 ctcccgggcc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284

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Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1             5             10             15
Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
      20             25             30
Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
      35             40             45
Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
      50             55             60
Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
65             70             75             80
Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
      85             90

```

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285

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nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcaggt gaaatgccgc
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aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
120
gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
180
atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
240
cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcacc
300
cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
360
agtgtggagt ctcccagcgc ccccagctcc ttgtcttctt gcaggtctgc tgtgcacgtg
420
ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggccctgagc
480
ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
540
ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a
591

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<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286

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Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1             5             10             15
Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

```


<400> 4288

```

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
 85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
100           105           110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
115           120           125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
130           135           140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
145           150           155           160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
165           170           175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
180           185           190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
195           200           205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
210           215           220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
225           230           235           240

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<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
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tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
120
caaagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagtcca catggcatcc tttgctctgt ccctgttctc ctgtctctgg
240
ctattcaggt tcccgtgagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
300
gccccgtgtt ttggagtcct tgtgctgagg cgcgtgtaac ttgcggagag ttg
353

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<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100          105          110
Leu

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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

```

nnaaatttgc caagccaaga gttacccag gaagattctc ttttacatgg ccaattttca
 60
caagcagtca ctcccctagc ccatcatcac acagattatt caaagccac cgatatctca
 120
tgagagaca cactttctca gaagtttga tcctcagatc acttgagaa actatttaag
 180
atggatgaag caagtgccca gtccttgct tataaggaaa aaggccattc tcagagttca
 240
caattttcct ctgatcaaga aatagctcat ctgctgctg aaaatgtgag tgcgctccca
 300
gctacgggtg cagttgcttc tccacatacc acctoggcta ctccaaagcc cgccaccctt
 360
ctaccacca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
 420
gctccacctg taaccactgt cactttctcag cctccacga ccctcatttc tacagttttt
 480
acaagggtg tggtacact ccaagcaatg gctacaa
 517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

```

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```


	20		25		30										
Tyr	Ser	Lys	Pro	Thr	Asp	Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys
	35		40		45										
Phe	Gly	Ser	Ser	Asp	His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala
50					55					60					
Ser	Ala	Gln	Leu	Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser
65					70					75				80	
Gln	Phe	Ser	Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val
				85					90					95	
Ser	Ala	Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser
	100							105					110		
Ala	Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr
	115						120					125			
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	Val
	130					135					140				
Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	Val	Phe
145					150					155				160	
Thr	Arg	Ala	Val	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr				
				165					170						

<210> 4293

<211> 547

<212> DNA

<213> Homo sapiens

<400> 4293

gccggcgccc ccggcgcgga tgcctgctct gtgcctgtat ctgagatcat cgccgttgag
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gaaacagacg ttcacgggaa acatcaaggc agtggaaaat ggcagaaaat ggaaaagcct
120

tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag
180

gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag
240

atgtcggaga agctgacgtc cagaccaaag catttactgg tatttatcaa cccgtttgga
300

ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactgtt caccttagcc
360

tccatcacca ctgacatcat cgttactgaa catgctaatac aggccaagga gactctgtat
420

gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc
480

gaggtgctgc acggtctgat tgggaggacg cagaggagcg ccggggtcga ccagaaccac
540

ccccggg

547

<210> 4294

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4294

Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

```

      1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
      20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
      35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
      50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
      65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
      85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
      100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
      115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
      130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
      145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
      165          170          175
Asp Gln Asn His Pro Arg
      180

```

<210> 4295

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4295

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nntctagaaa atcactgtct cttctaccc tgccatctct acaccagggg tacaacaag
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agcccaactgc tggctccttg ttttgtaa at aagatttggt ggactacagc tatgcccgtg
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagacccccca ttgccacaa gcctaaaaca ttgccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa ccctgtctcc
360
ccctcccaga ttcacgtgat tatccacct cagcctcctg agtacctggg actataggcg
420
cgtgccaacc a
431

```

<210> 4296

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4296

```

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

```

```

      1           5           10           15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile
      20           25           30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys
      35           40           45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile
      50           55           60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe
      65           70           75           80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu
      85           90           95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp
      100          105          110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile
      115          120          125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu
      130          135

```

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

```

nccatggact cggcctttgt gggataaaag gtcaaccaag tgtcagctgc agttggaaaa
60
gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaaag gaggacaatg ccatccttca tattctctca accaaagcaa gcacagcaca
300
tgaggagaagg gcatttggca tctgctgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttctt gaaactggag gatgacagtt tcccaactca caaaaggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgccctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatcgctgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

```

acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcgggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggg
 1080
 ggtgaacctg ttgccttcac caatgggaga agagggccct ctccacgctc caagcttgga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acagggggcc
 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgctcca tagaaaacaa
 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtgcc aagagattga taaataaata ttttttacia gataagatac aatttttgta
 1440
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc
 1500
 agaagaccct cacccttacc ccattccaaa tctcaggag caccagtctc atagtccttg
 1560
 gatttttttt aaaaaaaatt tttggtcccg ttacctctaa tgaatttatt ctgaaatatg
 1620
 tatcgtaggt gctcctacca ctttagtctg agtggaaagc caaaaaac
 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa	Met	Asp	Ser	Ala	Phe	Val	Gly	Ile	Lys	Val	Asn	Gln	Val	Ser	Ala
1				5					10					15	
Ala	Val	Gly	Lys	Asp	Phe	Thr	Val	Ile	Pro	Ser	Lys	Leu	Ile	Gln	Phe
		20						25					30		
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
		35					40					45			
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50					55					60				
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65					70					75				80	
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
			85					90					95		
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
		100						105					110		
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
		115					120					125			
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
	130					135					140				
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
145					150					155				160	
Asn	Gly	Lys	Thr	Val	Arg	Pro	Ser	Ser	Val	Tyr	Arg	Asn	Gly	Thr	Asp

```

                165                170                175
Ile Ile Tyr Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp
                180                185                190
Ser Phe Pro Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln
                195                200                205
Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
                210                215                220
Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
225                230                235                240
Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
                245                250                255
Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
                260                265                270
Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
                275                280                285
Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
                290                295                300
Gly Thr Trp Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
305                310                315                320
Asn Leu Val Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp
                325                330                335
Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
                340                345                350
Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
                355                360                365
Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
                370                375                380
Leu Val Gln Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala
385                390                395                400
Lys Pro His Asn Tyr Val Cys Ser Arg Lys Leu
                405                410

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<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

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nngcgaccgc tcttgctgaa aggtggctgg gagaggtcct ggtcagagtc ggagtcagag
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tcccaggagg ggagtggagg gctcaggcac tggcgccctt gtggcctctt aggtcgagg
120
ccttgggaca ggccccgag cacaaagtga ggctgtctat ggagttctgc agcacgtgca
180
cagcagacca tatatcactc agttccttct ggaggtcatc cttccagcag cactggctc
240
cctgcggtat ctcttcagtc tccggacagg cggctgtctc atgaccctgc tgcttcatct
300
tggtcaggat ttgcggcac ttcacctgcg ttttctgcat tttctgaatg ttcaccaagt
360
tctctgagat ctcatcctcc tgcgcttgga gcttctgata gatgaaggtc acctcctccc
420
gcaccagttc cagctcctcc cacaggaact tcttgctgtc ccggatctcc tgggccagca
480

```

gctgcaggca gcgagtgggtg cgggcccgt gcatctcttc actgtcacgc agggctcttct
 540
 ccagcccctg aaggccttgg gtcaggggccc catacagctc ctgccggccc tgctccatgc
 600
 cccacttggtg ctctctcttc tctccatggc ggctgtggg gctcagcacc tcttcaagct
 660
 gctgaatctt gatttgctgc aagcagctct ccttctccaa catggctact gagtggttca
 720
 ggaactcgaa agccttggtc tgggcctgta actggctctt gagtgactca agttcacatc
 780
 gcaggagctt ctgggagtcg ggaatcatca caatggctctt ggctttgact ttggaagagc
 840
 tggctctcaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
 900
 cagtcctcag ctgtgacgct gaagtttgat cccgcgggga caccatcgta ttaaacgct
 960
 cagagactga gtcacagaga ggggtgtc
 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5					10					15	
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20					25					30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
			35				40				45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
			50				55				60				
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70					75				80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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 120
 cagggccaga gcggggcagg aggatgcttt cccagcccca ccatggagct gcgctgtggg
 180
 ggattgctgt tcagttctcg ctttgattca gggaatctag cccacgtgga gaaggtggaa
 240
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 300

gcctcttccc ctgactatga attcaacgtg tggacccgac cagactgtgc tgaaacggaa
360
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420
ctcatcaaga tcaacattat gaacatgaac aagcagagca agctgtattc ccagggcatg
480
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540
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600
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720
gataccatct attaccatcg ggagctcctt tgctattctc tggatggact tcgtgtagat
780
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840
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1080
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1200
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1260
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1320
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1380
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1440
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1560
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1620
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1680
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1740
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1800
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1860
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1920

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 1980
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 2040
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 2160
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 2220
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 2280
 gtgttcgggtt gtctggggca ttgctggggg aagtaagagc ttgaagatat actgttggcc
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 2400
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 2429

<210> 4302
 <211> 717
 <212> PRT
 <213> Homo sapiens

<400> 4302
 Met Glu Leu Arg Cys Gly Gly Leu Leu Phe Ser Ser Arg Phe Asp Ser
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 Gly Asn Leu Ala His Val Glu Lys Val Glu Ser Leu Ser Ser Asp Gly
 20 25 30
 Glu Gly Val Gly Gly Gly Ala Ser Ala Leu Thr Ser Gly Ile Ala Ser
 35 40 45
 Ser Pro Asp Tyr Glu Phe Asn Val Trp Thr Arg Pro Asp Cys Ala Glu
 50 55 60
 Thr Glu Phe Glu Asn Gly Asn Arg Ser Trp Phe Tyr Phe Ser Val Arg
 65 70 75 80
 Gly Gly Met Pro Gly Lys Leu Ile Lys Ile Asn Ile Met Asn Met Asn
 85 90 95
 Lys Gln Ser Lys Leu Tyr Ser Gln Gly Met Ala Pro Phe Val Arg Thr
 100 105 110
 Leu Pro Thr Arg Pro Arg Trp Glu Arg Ile Arg Asp Arg Pro Thr Phe
 115 120 125
 Glu Met Thr Glu Thr Gln Phe Val Leu Ser Phe Val His Arg Phe Val
 130 135 140
 Glu Gly Arg Gly Ala Thr Thr Phe Phe Ala Phe Cys Tyr Pro Phe Ser
 145 150 155 160
 Tyr Ser Asp Cys Gln Glu Leu Leu Asn Gln Leu Asp Gln Arg Phe Pro
 165 170 175
 Glu Asn His Pro Thr His Ser Ser Pro Leu Asp Thr Ile Tyr Tyr His
 180 185 190
 Arg Glu Leu Leu Cys Tyr Ser Leu Asp Gly Leu Arg Val Asp Leu Leu
 195 200 205
 Thr Ile Thr Ser Cys His Gly Leu Arg Glu Asp Arg Glu Pro Arg Leu
 210 215 220
 Glu Gln Leu Phe Pro Asp Thr Ser Thr Pro Arg Pro Phe Arg Phe Ala


```

225          230          235          240
Gly Lys Arg Ile Phe Phe Leu Ser Ser Arg Val His Pro Gly Glu Thr
                245          250          255
Pro Ser Ser Phe Val Phe Asn Gly Phe Leu Asp Phe Ile Leu Arg Pro
                260          265          270
Asp Asp Pro Arg Ala Gln Thr Leu Arg Arg Leu Phe Val Phe Lys Leu
                275          280          285
Ile Pro Met Leu Asn Pro Asp Gly Val Val Arg Gly His Tyr Arg Thr
                290          295          300
Asp Ser Arg Gly Val Asn Leu Asn Arg Gln Tyr Leu Lys Pro Asp Ala
305          310          315          320
Val Leu His Pro Ala Ile Tyr Gly Ala Lys Ala Val Leu Leu Tyr His
                325          330          335
His Val His Ser Arg Leu Asn Ser Gln Ser Ser Ser Glu His Gln Pro
                340          345          350
Ser Ser Cys Leu Pro Pro Asp Ala Pro Val Ser Asp Leu Glu Lys Ala
                355          360          365
Asn Asn Leu Gln Asn Glu Ala Gln Cys Gly His Ser Ala Asp Arg His
                370          375          380
Asn Ala Glu Ala Trp Lys Gln Thr Glu Pro Ala Glu Gln Lys Leu Asn
385          390          395          400
Ser Val Trp Ile Met Pro Gln Gln Ser Ala Gly Leu Glu Glu Ser Ala
                405          410          415
Pro Asp Thr Ile Pro Pro Lys Glu Ser Gly Val Ala Tyr Tyr Val Asp
                420          425          430
Leu His Gly His Ala Ser Lys Arg Gly Cys Phe Met Tyr Gly Asn Ser
                435          440          445
Phe Ser Asp Glu Ser Thr Gln Val Glu Asn Met Leu Tyr Pro Lys Leu
                450          455          460
Ile Ser Leu Asn Ser Ala His Phe Asp Phe Gln Gly Cys Asn Phe Ser
465          470          475          480
Glu Lys Asn Met Tyr Ala Arg Asp Arg Arg Asp Gly Gln Ser Lys Glu
                485          490          495
Gly Ser Gly Arg Val Ala Ile Tyr Lys Ala Ser Gly Ile Ile His Ser
                500          505          510
Tyr Thr Leu Glu Cys Asn Tyr Asn Thr Gly Arg Ser Val Asn Ser Ile
                515          520          525
Pro Ala Ala Cys His Asp Asn Gly Arg Ala Ser Pro Pro Pro Pro
                530          535          540
Ala Phe Pro Ser Arg Tyr Thr Val Glu Leu Phe Glu Gln Val Gly Arg
545          550          555          560
Ala Met Ala Ile Ala Ala Leu Asp Met Ala Glu Cys Asn Pro Trp Pro
                565          570          575
Arg Ile Val Leu Ser Glu His Ser Ser Leu Thr Asn Leu Arg Ala Trp
                580          585          590
Met Leu Lys His Val Arg Asn Ser Arg Gly Leu Ser Ser Thr Leu Asn
                595          600          605
Val Gly Val Asn Lys Lys Arg Gly Leu Arg Thr Pro Pro Lys Ser His
                610          615          620
Asn Gly Leu Pro Val Ser Cys Ser Glu Asn Thr Leu Ser Arg Ala Arg
625          630          635          640
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<400> 4304															
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Glu	Glu	Glu	Glu	Glu	Gln	Asp	His	Gly	Val	Gly	Arg	Thr	Gly	Thr	Val
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Asn	Ser	Val	Gly	Ser	Asn	Gln	Ser	Ile	Pro	Ser	Met	Ser	Ile	Ser	Ala

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Lys Ser Glu Leu Asp Met Met Glu Gly Asp His Thr Val Met Ser Asn		80
	85	90
Ser Ser Val Ile His Leu Lys Pro Glu Glu Glu Asn Tyr Arg Glu Glu		95
	100	105
Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val		110
	115	120
Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile		125
	130	135
Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp		140
	145	150
Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln		155
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His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met		170
	175	180
Asp Glu His Arg Leu Arg Leu Asp Lys Asp Leu Glu Thr Gln Arg Asn		185
	190	195
Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala		200
	205	210
Met Glu Lys Glu Ala Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln		215
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Gln His Ile Gln Ala Gln Gln Lys Lys Glu Leu Asn Ser Phe Leu Glu		230
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<210> 4305

<211> 3400

<212> DNA

<213> Homo sapiens

<400> 4305

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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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			20						25					30	
Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
			35				40						45		
Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
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Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

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Gly	Leu	Gly	Ser	Ala	Leu	Gly	Ser	Leu	Arg	Val	Leu	Val	Leu	Arg
				85					90					95
Asn	Arg	Phe	Ala	Arg	Leu	Pro	Pro	Ala	Val	Ala	Glu	Leu	Gly	His
			100					105					110	His
Leu	Thr	Glu	Leu	Asp	Val	Ser	His	Asn	Arg	Leu	Thr	Ala	Leu	Gly
		115					120					125		Ala
Glu	Val	Val	Ser	Ala	Leu	Arg	Glu	Leu	Arg	Lys	Leu	Asn	Leu	Ser
	130					135				140				His
Asn	Gln	Leu	Pro	Ala	Leu	Pro	Ala	Gln	Leu	Gly	Ala	Leu	Ala	His
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Glu	Glu	Leu	Asp	Val	Ser	Phe	Asn	Arg	Leu	Ala	His	Leu	Pro	Asp
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Leu	Ser	Cys	Leu	Ser	Arg	Leu	Arg	Thr	Leu	Asp	Val	Asp	His	Asn
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Leu	Thr	Ala	Phe	Pro	Arg	Gln	Leu	Leu	Gln	Leu	Val	Ala	Leu	Glu
		195				200						205		Glu
Leu	Asp	Val	Ser	Ser	Asn	Arg	Leu	Arg	Gly	Leu	Pro	Glu	Asp	Ile
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Thr	Leu	Pro	Ala	Gly	Phe	Cys	Glu	Leu	Ala	Ser	Leu	Glu	Ser	Leu
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Leu	Asp	Asn	Asn	Gly	Leu	Gln	Ala	Leu	Pro	Ala	Gln	Phe	Ser	Cys
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Gln	Arg	Leu	Lys	Met	Leu	Asn	Leu	Ser	Ser	Asn	Leu	Phe	Glu	Glu
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Arg	Asn	Gln	Leu	Thr	Ser	Val	Pro	Ser	Leu	Ile	Ser	Gly	Leu	Gly
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Leu	Leu	Thr	Leu	Trp	Leu	Asp	Asn	Asn	Arg	Ile	Arg	Tyr	Leu	Pro
			325						330				335	Asp
Ser	Ile	Val	Glu	Leu	Thr	Gly	Leu	Glu	Glu	Leu	Val	Leu	Gln	Gly
		340					345						350	Asn
Gln	Ile	Ala	Val	Leu	Pro	Asp	His	Phe	Gly	Gln	Leu	Ser	Arg	Val
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Leu	Trp	Lys	Ile	Lys	Asp	Asn	Pro	Leu	Ile	Gln	Pro	Pro	Tyr	Glu
	370					375					380			Val
Cys	Met	Lys	Gly	Ile	Pro	Tyr	Ile	Ala	Ala	Tyr	Gln	Lys	Glu	Leu
385					390					395				Ala
His	Ser	Gln	Pro	Ala	Val	Gln	Pro	Arg	Leu	Lys	Leu	Leu	Leu	Met
			405						410				415	Gly
His	Lys	Ala	Ala	Gly	Lys	Thr	Leu	Leu	Arg	His	Cys	Leu	Thr	Glu
		420					425						430	Glu
Arg	Val	Glu	Gly	Cys	Pro	Gly	Gly	Gly	Asp	Lys	Glu	Lys	Cys	Tyr
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Pro	Ser	Pro	Pro	Pro	Val	Ser	Lys	Gly	Ile	Glu	Val	Thr	Ser	Trp
	450					455					460			Thr
Ala	Asp	Ala	Ser	Arg	Gly	Leu	Arg	Phe	Ile	Val	Tyr	Asp	Leu	Ala
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Asp	Glu	Ser	Tyr	Glu	Val	Ile	Gln	Pro	Phe	Phe	Leu	Ser	Pro	Gly
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Leu	Tyr	Val	Leu	Val	Val	Asn	Leu	Ala	Thr	Tyr	Glu	Pro	Arg	His

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Asn Ala Val Val Cys Ile Val Gly Thr His Ala Asp Leu Cys Gly Glu		
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Arg Glu Leu Glu Glu Lys Cys Leu Asp Ile His Arg Gln Ile Ala Leu		
545	550	555
Gln Glu Lys His Asp Ala Glu Gly Leu Ser Arg Leu Ala Lys Val Val		
565	570	575
Asp Glu Ala Leu Ala Arg Asp Phe Glu Leu Arg Ser Ala Ser Pro His		
580	585	590
Ala Ala Tyr Tyr Gly Val Ser Asp Lys Asn Leu Arg Arg Arg Lys Ala		
595	600	605
His Phe Gln Tyr Leu Leu Asn His Arg Leu Gln Ile Leu Ser Pro Val		
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Leu Pro Val Ser Cys Arg Asp Pro Arg His Leu Arg Arg Leu Arg Asp		
625	630	635
Lys Leu Leu Ser Val Ala Glu His Arg Glu Ile Phe Pro Asn Leu His		
645	650	655
Arg Val Leu Pro Arg Ser Trp Gln Val Leu Glu Glu Leu His Phe Gln		
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Pro Pro Gln Ala Gln Arg Leu Trp Leu Ser Trp Trp Asp Ser Ala Arg		
675	680	685
Leu Gly Leu Gln Ala Gly Leu Thr Glu Asp Arg Leu Gln Ser Ala Leu		
690	695	700
Ser Tyr Leu His Glu Ser Gly Lys Leu Leu Tyr Phe Glu Asp Ser Pro		
705	710	715
Ala Leu Lys Glu His Val Phe His Asn Leu Thr Arg Leu Ile Asp Ile		
725	730	735
Leu Asn Val Phe Phe Gln Arg Asp Pro Ser Leu Leu Leu His Lys Leu		
740	745	750
Leu Leu Gly Thr Ser Gly Glu Gly Lys Ala Glu Gly Glu Ser Ser Pro		
755	760	765
Pro Met Ala Arg Ser Thr Pro Ser Gln Glu Leu Leu Arg Ala Thr Gln		
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Leu His Gln Tyr Val Glu Gly Phe Leu Leu His Gly Leu Leu Pro Ala		
785	790	795
His Val Ile Arg Leu Leu Leu Lys Pro His Val Gln Ala Gln Gln Asp		
805	810	815
Leu Gln Leu Leu Leu Glu Leu Leu Glu Lys Met Gly Leu Cys Tyr Cys		
820	825	830
Leu Asn Lys Pro Lys Gly Lys Pro Leu Asn Gly Ser Thr Ala Trp Tyr		
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Lys Phe Pro Cys Tyr Val Gln Asn Glu Val Pro His Ala Glu Ala Trp		
850	855	860
Ile Asn Gly Thr Asn Leu Ala Gly Gln Ser Phe Val Ala Glu Gln Leu		
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Gln Ile Glu Tyr Ser Phe Pro Phe Thr Phe Pro Pro Gly Leu Phe Ala		
885	890	895
Arg Tyr Ser Val Gln Ile Asn Ser His Val Val His Arg Ser Asp Gly		
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Lys Phe Gln Ile Phe Ala Tyr Arg Gly Lys Val Pro Val Val Val Ser		
915	920	925
Tyr Arg Pro Ala Arg Gly Val Leu Gln Pro Asp Thr Leu Ser Ile Ala		

930	935	940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr		
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Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu		960
	965	970
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		975
	980	985
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		990
	995	1000
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		1005
	1010	1015
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		1020
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Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln		1040
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<210> 4307

<211> 947

<212> DNA

<213> Homo sapiens

<400> 4307

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<210> 4308
 <211> 200
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 <213> Homo sapiens

<400> 4308
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 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
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 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
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 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
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<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

<400> 4309
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<210> 4310

<211> 599

<212> PRT

<213> Homo sapiens

<400> 4310

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Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
      35              40              45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
 50              55              60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
65              70              75              80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
      85              90              95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100             105             110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
      115             120             125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
130             135             140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
145             150             155             160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
      165             170             175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
      180             185             190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
      195             200             205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
210             215             220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
225             230             235             240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
      245             250             255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260             265             270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
      275             280             285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
290             295             300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
305             310             315             320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
      325             330             335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
      340             345             350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
      355             360             365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
370             375             380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385          390          395          400
Lys His Leu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
          405          410          415
Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
          420          425          430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
595

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<210> 4311
<211> 432
<212> DNA
<213> Homo sapiens

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<400> 4311
nnacgcgtga agggcattcg cccttggaat tgtcagcgat gttttgcaca ttatgatgtc
60
cagagcattt tgtttaatat caacgaagcc atggctacga gggctaattgt ggggaaaagg
120
aaaaacataa ccaactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctgcctcctta gttgtcctta ctttagaaat
300
gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctctttc
360
agttctgggg aaagctgctc ttctgaatcg tcaactcagct ctcaactgcac aaatgcaggt
420
gtctccgtct tg
432

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<210> 4312
<211> 144
<212> PRT

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<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1           5           10           15
His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
          20           25           30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
          35           40           45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
          50           55           60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
65           70           75           80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
          85           90           95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
          100          105          110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
          115          120          125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
          130          135          140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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ggatccctcc ttttctctcc cctgcctcgc ccaggcccag atggccttga ctgtaaagcc
60
agggtgctgcc tgacaggttc ttctctccct gtctctggtc attgatccat ctctttgtcc
120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcaccccaac tctatgcctt accctccca acccaacagc
240
atctgcagtt tgcaaaatat acagacccaa gtctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttctcacc
360
tccttggagc ctctctgct gcttgtctat cccaacggcc ctgctcccct ccttctctgc
420
ccttcaccag ctttctggga caccatgccc tgaggaaggg acctttggtt ttctctaaac
480
atctttgaag ggctgaggca gtcagggtcg gctgccttgt cactctttat ttggaagcca
540
ctcaaaccat tcccaagaag agggacctca gctggcaatc tggaaacctg gccaggtct
600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcaccttca tgctgtaggg tctgcagcc ccatecttct
720
tctactgggc cctggtatcc tggctcctct ctcagctctg ccactgatct ctgtgcctta
780

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gtttactttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat
 840
 gtggtgcccc aaggctgggc tttgcagctg tggcccagct ccttagtgct gcccaggaga
 900
 caccaggctg ctcaaatga ggtgactgcg ggcaac
 936

<210> 4314

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4314

Met	Ser	Ser	Leu	Leu	Leu	Pro	Ser	Gln	Ser	Cys	Asp	Pro	Val	Met	Ser
1				5					10					15	
Thr	Arg	Met	Ala	Leu	Trp	Ser	Leu	Glu	His	Pro	Ser	Cys	Cys	Arg	Val
			20					25					30		
Leu	Gln	Pro	His	Pro	Phe	Ser	Thr	Gly	Pro	Trp	Tyr	Pro	Gly	Ser	Ser
		35					40				45				
Leu	Ser	Ser	Ala	Thr	Asp	Leu	Cys	Ala	Leu	Val	Tyr	Phe	Ser	Ala	Arg
	50					55				60					
Gly	Thr	His	Pro	Lys	Thr	Ile	Ser	Ser	Ser	Phe	Pro	Gly	Asp	Val	Val
65					70					75				80	
Pro	Gln	Gly	Trp	Ala	Leu	Gln	Leu	Trp	Pro	Ser	Ser	Leu	Val	Leu	Pro
			85					90					95		
Arg	Arg	His	Gln	Ala	Ala	Gln	Asn	Glu	Val	Thr	Ala	Gly	Asn		
			100					105					110		

<210> 4315

<211> 573

<212> DNA

<213> Homo sapiens

<400> 4315

nncctaattcc aatatgactg gtgtccttat aagaagagga aattaggaca cagacaggca
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 cagagcgatg accatgtgaa gacacaggga agagatggcc acctaccacc acgcatggt
 120
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcattctacc atccaagcca
 180
 ccgtcaccta ccatccaagc catggccacc tacctgcca gccatggcca cctaccgcc
 240
 aagccatggt cacctaccca ccaagtcatg gtcgcctacc atccaaggag caggcctgga
 300
 acagatcctt ccccagagcc ctcatgtaga gccaacctg ctgacacctt gatctcagac
 360
 ttcaagcctc cagaactgtg ggacaatcct tcactgtcat ttaatccacc cagcatgtgg
 420
 tctcttgta cagttgcatt agccagtga cctaccggg cccttctgca gtcgcctggc
 480
 tcaggagtgg ttctggtcag gaagttctga ggccaggcag gatcgggaca ctccctggaa
 540
 agacccgagg gagatatttg ggaaacaaga tgg
 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
 nntgaagaga agtcaaaaaa ctcacgacct gtcagagatt tggggtccat ttcaggatca
 60
 tcccatgccg aaaacatact ccagatatctt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatttt agctgaagct atggaatgtt ttttcagta tgtttatact
 300
 ggaaaggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcattgtgc aagttcttgaggaggcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggtat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
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 720
 caaacagttg aagtggacca attg
 744

<210> 4318
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 4318
 Pro Val Arg Asp Leu Gly Ser Ile Ser Gly Ser Ser His Ala Glu Asn
 1 5 10 15
 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp
 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 4319
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ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct tttagtgcct
 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttg gcc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
1				5					10					15	
Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
		35					40					45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
	50					55				60					
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65					70					75				80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85					90						95	
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
		100					105						110		
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
		115					120					125			

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

ngcccagaac ctgccacagt cccctgagaa caccgacctg caggttattc caggcagcca
 60
 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg
 120
 cgtccccgtg gaaggcagcc ctgggcggaa ccaggcggt taacggctca ctaggcagcc
 180
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt
 240
 gccgcctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
 ngttacagta aagatggagc aaagtccttg aaaggagatg tgcctgcctc tgaggtgaca
 60
 ctgaaagact cgacattcag ccagtttagc ccgatctcca gtgctgaaga gtttgatgac
 120
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
 180
 tcgaatgtgt tgacgggggtc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
 ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct
 300
 gttaagagag aaacagaagc cagttctata aacctgagtg tttatgaacc ttttaaagtc
 360
 agaaaagcag.aggataaatt gaaggaaagc tctgacaagg tgctggaaaa cagagtccta
 420
 gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcgttgc gccatcaaag
 480
 acaaagtcgt cctccaagct ctcgctcctgc atcgctgcca tcgcggtctc cagcgctaaa
 540
 aaggcgggctt cagactcctg caaagaacca gtggccaatt cgagggaatc ctccccgtta
 600
 ccaaaagaag taaatgacag tccgagagcc gctgacaagt ctctgaatc ccagaatctc
 660
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt
 720
 gagaacagca gcaaaggatc cccgtcctct cccgcggggt ccacaccagc aatcccaaaa
 780
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggta
 840

ttgccagaag tggatcttga ctctggaaag aaaccttccg agcagacagc gtccgtcatg
 900
 gcctctgtga catcccttct gtcgtctcca gcatcagccg ccgtcccttc ctctcccccc
 960
 agggcgcttc tccagtctgc ggtcgtgacc aatgcagttt cccctgcaga gtcaccccc
 1020
 aaacaggtca caatcaagcc tgtggctact gctttcctcc cagtgtctgc tgtgaagacg
 1080
 gcaggatccc aagtcattaa tttgaagctc gctaacaaca ccacggtgaa agccacggtc
 1140
 atatctgctg cctctgtcca gagtgccagc agcgccatca ttaaagctgc caacgccatc
 1200
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
 actgtgcacc ttgccaacct taaccttttg cctcaggggtg cccaggccac ctctgaactc
 1320
 cgccaagtgc taaccaaacc tcagcaacaa ataaagcagg caataatcaa tgcagcagcc
 1380
 tcgcaacccc caaaaaaggt gtctcgagtc caggtggtgt cgtccttgca gagttctgtg
 1440
 gtggaagctt tcaacaaggt gctgagcagt gtcaatccag tccctgttta catcccaaac
 1500
 ctcagtcctc ccgccaatgc agggatcacg ttaccgacgc gt
 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa	Tyr	Ser	Lys	Asp	Gly	Ala	Lys	Ser	Leu	Lys	Gly	Asp	Val	Pro	Ala
1			5						10					15	
Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
			20						25					30	
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
			35						40					45	
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
			50				55				60				
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70					75				80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85						90					95	
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100						105					110	
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
			115						120				125		
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
			130						135				140		
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145					150					155				160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
					165					170				175	
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

			180					185					190				
Asn	Ser	Arg	Glu	Ser	Ser	Pro	Leu	Pro	Lys	Glu	Val	Asn	Asp	Ser	Pro		
		195					200					205					
Arg	Ala	Ala	Asp	Lys	Ser	Pro	Glu	Ser	Gln	Asn	Leu	Ile	Asp	Gly	Thr		
	210					215					220						
Lys	Lys	Pro	Ser	Leu	Lys	Gln	Pro	Asp	Ser	Pro	Arg	Ser	Ile	Ser	Ser		
225					230					235					240		
Glu	Asn	Ser	Ser	Lys	Gly	Ser	Pro	Ser	Ser	Pro	Ala	Gly	Ser	Thr	Pro		
				245					250						255		
Ala	Ile	Pro	Lys	Val	Arg	Ile	Lys	Thr	Ile	Lys	Thr	Ser	Ser	Gly	Glu		
			260					265						270			
Ile	Lys	Arg	Thr	Val	Thr	Arg	Val	Leu	Pro	Glu	Val	Asp	Leu	Asp	Ser		
	275						280					285					
Gly	Lys	Lys	Pro	Ser	Glu	Gln	Thr	Ala	Ser	Val	Met	Ala	Ser	Val	Thr		
	290					295					300						
Ser	Leu	Leu	Ser	Ser	Pro	Ala	Ser	Ala	Ala	Val	Leu	Ser	Ser	Pro	Pro		
305					310					315					320		
Arg	Ala	Pro	Leu	Gln	Ser	Ala	Val	Val	Thr	Asn	Ala	Val	Ser	Pro	Ala		
				325					330						335		
Glu	Leu	Thr	Pro	Lys	Gln	Val	Thr	Ile	Lys	Pro	Val	Ala	Thr	Ala	Phe		
			340					345						350			
Leu	Pro	Val	Ser	Ala	Val	Lys	Thr	Ala	Gly	Ser	Gln	Val	Ile	Asn	Leu		
	355						360					365					
Lys	Leu	Ala	Asn	Asn	Thr	Thr	Val	Lys	Ala	Thr	Val	Ile	Ser	Ala	Ala		
	370					375						380					
Ser	Val	Gln	Ser	Ala	Ser	Ser	Ala	Ile	Ile	Lys	Ala	Ala	Asn	Ala	Ile		
385					390					395					400		
Gln	Gln	Gln	Thr	Val	Val	Val	Pro	Ala	Ser	Ser	Leu	Ala	Asn	Ala	Lys		
				405					410						415		
Leu	Val	Pro	Lys	Thr	Val	His	Leu	Ala	Asn	Leu	Asn	Leu	Leu	Pro	Gln		
			420					425						430			
Gly	Ala	Gln	Ala	Thr	Ser	Glu	Leu	Arg	Gln	Val	Leu	Thr	Lys	Pro	Gln		
	435						440						445				
Gln	Gln	Ile	Lys	Gln	Ala	Ile	Ile	Asn	Ala	Ala	Ala	Ser	Gln	Pro	Pro		
	450					455						460					
Lys	Lys	Val	Ser	Arg	Val	Gln	Val	Val	Ser	Ser	Leu	Gln	Ser	Ser	Val		
465					470					475					480		
Val	Glu	Ala	Phe	Asn	Lys	Val	Leu	Ser	Ser	Val	Asn	Pro	Val	Pro	Val		
				485					490						495		
Tyr	Ile	Pro	Asn														

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<210> 4325
<211> 1405
<212> DNA
<213> Homo sapiens
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<400> 4325
acgcgtgccc ggggtctgct gtgcagcgca gcccgttgtg gtgatacgag ccggagatgc
60
cttctgcagg gactgtttca aggccttcta cgtccacaag ttcatagcc tgcctgggcaa
120
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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
 180
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<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

Met	Phe	Phe	Leu	Pro	Gln	Val	Leu	Leu	Ala	Trp	Ser	Gly	Gly	Pro	Ser
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<210> 4327
<211> 551
<212> DNA
<213> Homo sapiens
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<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
		20						25				30			
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35					40					45			
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50					55				60					
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65					70					75				80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
			85					90					95		
Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
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<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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Met	Leu	Leu	Asp	Tyr	Ser	Val	Tyr	Met	Gly	Arg	Cys	Val	Pro	Gln	Glu
			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
			35				40					45			
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

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Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
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Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
      85      90      95
Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
      100      105      110
Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
      115      120      125
Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
      130      135      140
Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
145      150      155      160
Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
      165      170      175
Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
      180      185      190
Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
      195      200      205
Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
      210      215      220
Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
225      230      235      240
Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
      245      250      255
Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
      260      265      270
Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
      275      280      285
Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
      290      295      300
Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
305      310      315      320
Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
      325      330      335
Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
      340      345      350
Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
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Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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120

gatttaaag agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca

180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
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 300
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 780
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<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20				25					30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
			35			40					45				
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

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<210> 4333
<211> 1278
<212> DNA
<213> Homo sapiens
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120
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300
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<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
	50				55						60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75					80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
			85				90						95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

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<400> 4335
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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

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 35 40 45
 Leu Val Glu Val Val Ala Lys Tyr Thr Arg Asp His Val Gly Ser Phe
 50 55 60
 Met Thr Glu Ser Gln Asn Leu Ser Thr His Leu Leu Ile Leu Tyr Gly
 65 70 75 80
 Val Gln Gly Leu Leu Thr Phe Gly Tyr Leu Val Leu Leu Ser His Val
 85 90 95
 Gly Glu Arg Met Ala Val Asp Met Arg Arg Ala Leu Phe Ser Ser Leu
 100 105 110
 Leu Arg Gln Asp Ile Thr Phe Phe Asp Ala Asn Lys Thr Gly Gln Leu
 115 120 125
 Val Ser Arg Leu Thr Thr Asp Val Gln Glu Phe Lys Ser Ser Phe Lys
 130 135 140
 Leu Val Ile Ser Gln Gly Leu Arg Ser Cys Thr Gln Val Ala Gly Cys
 145 150 155 160
 Leu Val Ser Leu Ser Met Leu Ser Thr Arg Leu Thr Leu Leu Leu Met
 165 170 175
 Val Ala Thr Pro Ala Leu Met Gly Val Gly Thr Leu Met Gly Ser Gly
 180 185 190
 Leu Arg Lys Leu Ser Arg Gln Cys Gln Glu Gln Ile Ala Arg Ala Met
 195 200 205
 Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg Ala Phe
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 Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu Glu Ala
 225 230 235 240
 Cys Arg Cys Arg Ala Glu Glu Leu Gly Arg Gly Ile Ala Leu Phe Gln
 245 250 255
 Gly Leu Ser Asn Ile Ala Phe Asn Cys Met Val Leu Gly Thr Leu Phe
 260 265 270
 Ile Gly Gly Ser Leu Val Ala Gly Gln Gln Leu Thr Gly Gly Asp Leu
 275 280 285
 Met Ser Phe Leu Val Ala Ser Gln Thr Val Gln Ser Phe Leu Arg Val
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 305 310 315 320
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325

<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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<210> 4338

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4338

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Thr	Trp	Phe	Pro	Ser	Ser	Gly	Ala	His	Gly	Gly	Glu	Val	Glu	Gly	Gly
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Arg	Arg	Glu	Gly	Ala	Thr	Cys	Cys	Ser	Val	Glu	Lys	Gln	Gln	Ser	Pro
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Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
65					70				75					80	
Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
				85					90					95	
Ser	Phe	Val	Leu	Cys	Thr	Met	Pro	Gln	Lys	Asn	Ile	Leu	Leu	Ile	Cys
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Asn	Gln	Asp	Asn	Ile	Ile										
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<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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		20						25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
		35					40					45			
Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
	50					55					60				
Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
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Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
			85						90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
		100						105				110			
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
		115					120					125			
Leu	Gln	Asn	Ile	Leu	Gly	Val	Ile	Leu	Phe	Leu	Arg	Leu	Thr	Trp	Ile
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Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
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Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
				165					170					175	
Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
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Leu	Gly	Pro	Glu	Phe	Gly	Gly	Ala	Val	Gly	Leu	Cys	Phe	Tyr	Leu	Gly
		195					200					205			
Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
	210					215					220				
Leu	Thr	Tyr	Ile	Ser	Pro	Gly	Ala	Ala	Ile	Phe	Gln	Ala	Glu	Ala	Ala
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Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
			245					250						255	
Cys	Thr	Leu	Val	Leu	Met	Ala	Leu	Val	Val	Phe	Val	Gly	Val	Lys	Tyr

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 Ile Pro Val Cys Leu Leu Gly Asn Arg Thr Leu Ser Arg Arg Ser Phe
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 Asp Ala Cys Val Lys Ala Tyr Gly Ile His Asn Asn Ser Ala Thr Ser
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 Ala Leu Trp Gly Leu Phe Cys Asn Gly Ser Gln Pro Ser Ala Ala Cys
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 Asp Glu Tyr Phe Ile Gln Asn Asn Val Thr Glu Ile Gln Gly Ile Pro
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 His Ala Gly Ala Phe Val Glu Lys Lys Gly Val Pro Ser Val Pro Val
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 Pro Arg Phe Lys Phe Tyr His Trp Thr Leu Ser Phe Leu Gly Met Ser
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 Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu
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 Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser
 755 760 765
 Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly
 770 775 780
 Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys
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 Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg
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 Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met
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 Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn
 930 935 940
 Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser
 945 950 955 960
 His Thr Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys
 965 970 975
 Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg
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 Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys
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 Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr
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<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4341

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<210> 4342

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4342

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			20					25					30		
Lys	Glu	Gly	Leu	Val	Ser	Val	Gly	Ile	Thr	Gln	Lys	Arg	Ala	Leu	Tyr
			35				40					45			
Met	Phe	Ser	Tyr	Lys	Tyr	Ser	Val	Met	Glu	Lys	His	Ser	Leu	Asp	Ala
	50				55						60				
Tyr	Gly	Ser	Leu	Arg	Ser	Phe	Phe	Phe	His	Pro	Leu	Phe	Leu	Glu	Lys
65				70					75					80	
Lys	Phe	Phe	Lys	Ala	Tyr	Asn	Leu	Lys	Ser	Thr	Ser	Thr	Tyr	Ser	Arg
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Asn	Ile	Val	Ala	Phe	Ser	Ile									
			100												

<210> 4343

<211> 499

<212> DNA

<213> Homo sapiens

<400> 4343

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<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

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			20				25					30			
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro
		35				40					45				
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
	50				55						60				
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65				70				75					80		
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
			85				90						95		
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
		100				105						110			
Val	Val	Gln	Ile	Leu	Ile										
		115													

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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<212> PRT

<213> Homo sapiens

<400> 4350

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<211> 86

<212> PRT

<213> Homo sapiens

<400> 4352

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			20					25					30		
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<211> 2471

<212> DNA

<213> Homo sapiens

<400> 4353

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<211> S86

<212> PRT

<213> Homo sapiens

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Thr	Leu	Lys	His	Gln	Arg	Pro	Gln	Pro	Glu	Lys	Gln	Lys	Gln	Phe	Ser
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4360

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 840
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 caggagtcca ctgccagagg ttccttctcc tctcctcct cccgtttccg cttcagacct
 1080
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<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
 50 55 60
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
 65 70 75

<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365
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 120
 gtcaccgacg acatcaagcc ggggtgtggcg attggcggta cgtcgttccc gacctactac
 180
 cgagcatgt acccgaaaga agtgcacatg accggcgaca tgatgctgga aaaggtctat
 240
 cgcgaggggcg acaagctggt ggcggtgctg gagaacgaat acaccggcgc caaggaagag
 300
 cgggtggtcg accaggtggt ggtggagaac ggtgtgcgtc cggatgagga aatctactac
 360
 gggctcaagg aaggttcgcg caacaagggc cagatcgatg tcgaagccct gttcgcgatc
 420
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 469

<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
 Asp Val Leu Asp Gly Lys Val Ala Pro Gly Lys Asn Val Pro Val Tyr
 1 5 10 15
 Asp Thr Ile Cys Glu Phe Thr Gly Met Ser Val Ala Asp Phe Leu Ala
 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

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65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
          85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
          100          105          110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
          115          120          125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
          130          135          140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

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<210> 4367
 <211> 852
 <212> DNA
 <213> Homo sapiens

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<400> 4367
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ggagctggtg gggctggccg cggggaggat gaagagaacc gagagcaccg tgtccgcagg
240
atccatgtcc ggcgccatat caccacgac gagcgtcctc atggccaaca aattgtcttc
300
aaggactgac ctctgacct cccctgcct tcctcttgcc ttgggaccca gtccctctct
360
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480
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600
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660
gtctgagcag cctcccgcgt cctgcagggt agtccgcccc ctctcccga ccatcctccc
720
tacctcctta actttgtact agactggcct gggcctgcc agctcagcgt tatcagtctg
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aactaaaaaa aa
852

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<210> 4368
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 4368
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 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
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<210> 4369
 <211> 1264
 <212> DNA
 <213> Homo sapiens

<400> 4369
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 120
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg
 180
 gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta
 240
 aatggaacta atgccaagc gtttgagtta agctacctcg agaagggtcc agaagtcaaa
 300
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 420
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 480
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 540
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 600
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 660
 aacataaaca aattctgcag gattattagt gaatttgac tagagtatcg cacaaccagg
 720
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 780
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 840
 ccgcagggtc tgagctatgc ggaggacgag gctgagcacg agaacatgaa ggctgtgctg
 900
 aaaacctcgt cccctccag gagtccccctg cacatacctt ctccatcgtg tcagctgtgt
 960

ttctcttgat tccgtgacac ccggtttatt agttcaaaag tgtgacacct tttctgggca
 1020
 aggaacagcc cctttaagga gcaaactact tctgtcacag ttattatggg aatatgaggc
 1080
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccac
 1140
 aaacttgtag acaaaagaaa gcacagattg tttacctgtt gtggatttta gatgtaacaa
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 1264

<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

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		20						25					30		
Trp	Ala	Phe	Lys	Met	Asp	Tyr	Glu	Thr	Thr	Glu	Lys	Glu	Val	Ala	Glu
	35						40					45			
Pro	Leu	Leu	Asp	Leu	Lys	Glu	Gly	Ile	Asp	Gln	Leu	Glu	Asn	Asn	Lys
	50				55					60					
Thr	Leu	Gly	Phe	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ile	Gly	Asn	Phe	Leu
	65			70						75				80	
Asn	Gly	Thr	Asn	Ala	Lys	Ala	Phe	Glu	Leu	Ser	Tyr	Leu	Glu	Lys	Val
			85					90					95		
Pro	Glu	Val	Lys	Asp	Thr	Val	His	Lys	Gln	Ser	Leu	Leu	His	His	Val
		100						105					110		
Cys	Thr	Met	Val	Val	Glu	Asn	Phe	Pro	Asp	Ser	Ser	Asp	Leu	Tyr	Ser
	115					120						125			
Glu	Ile	Gly	Ala	Ile	Thr	Arg	Ser	Ala	Lys	Val	Asp	Phe	Asp	Gln	Leu
	130				135					140					
Gln	Asp	Asn	Leu	Cys	Gln	Met	Glu	Arg	Arg	Cys	Lys	Ala	Ser	Trp	Asp
	145			150						155				160	
His	Leu	Lys	Ala	Ile	Ala	Lys	His	Glu	Met	Lys	Pro	Val	Leu	Lys	Gln
			165					170						175	
Arg	Met	Ser	Glu	Phe	Leu	Lys	Asp	Cys	Ala	Glu	Arg	Ile	Ile	Ile	Leu
	180							185					190		
Lys	Ile	Val	His	Arg	Arg	Ile	Ile	Asn	Arg	Phe	His	Ser	Phe	Leu	Leu
	195					200						205			
Phe	Met	Gly	His	Pro	Pro	Tyr	Ala	Ile	Arg	Glu	Val	Asn	Ile	Asn	Lys
	210					215					220				
Phe	Cys	Arg	Ile	Ile	Ser	Glu	Phe	Ala	Leu	Glu	Tyr	Arg	Thr	Thr	Arg
	225				230					235				240	
Glu	Arg	Val	Leu	Gln	Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg	
			245					250					255		
Asn	Lys	Thr	Arg	Gly	Lys	Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly
		260						265					270		
Ser	Ser	Pro	Ala	Pro	Pro	Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Glu


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      1           5           10           15
Asp Ser Leu Asp Lys Ser Ile Thr Leu Pro Pro Asp Glu Ile Phe Arg
      20           25           30
Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
      275          280          285
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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120
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gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240
tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
300

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tgattgctcc agggcccaca acggcagtgt cctacatgtc ggtgaaatgt gtggatgcc
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 420
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg
 480
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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

Met	Ala	Gly	Ala	Ile	Ile	Glu	Asn	Met	Ser	Thr	Lys	Lys	Leu	Cys	Ile
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			20					25					30		
Gly	Leu	Ile	Ala	Pro	Gly	Pro	Thr	Thr	Ala	Val	Ser	Tyr	Met	Ser	Val
		35					40					45			
Lys	Cys	Val	Asp	Ala	Arg	Lys	Asn	His	His	Lys	Thr	Lys	Trp	Phe	Val
	50					55					60				
Pro	Trp	Gly	Pro	Asn	His	Cys	Asp	Lys	Ile	Arg	Asp	Ile	Glu	Glu	Ala
65				70					75					80	
Ile	Pro	Arg	Glu	Ile	Glu	Ala	Asn	Asp	Ile	Val	Phe	Ser	Val	His	Ile
			85					90					95		
Pro	Leu	Pro	His	Met	Glu	Met	Ser	Pro	Trp	Phe	Gln	Phe	Met	Leu	Phe
			100					105					110		
Ile	Leu	Gln	Leu	Asp	Ile	Ala	Phe	Lys	Leu	Asn	Asn	Gln	Ile	Arg	Glu
		115					120					125			
Asn	Ala	Glu	Val	Ser	Met	Asp	Val	Ser	Leu	Ala	Tyr	Arg	Asp	Asp	Ala
	130					135					140				
Phe	Ala	Glu	Trp	Thr	Glu	Met	Ala	His	Glu	Arg	Val	Pro	Arg	Lys	Leu
145				150					155					160	
Lys	Cys	Thr	Phe	Thr	Ser	Pro	Lys	Thr	Pro	Glu	His	Glu	Gly	Arg	Tyr
			165					170						175	
Tyr	Glu	Cys	Asp	Val	Leu	Pro	Phe	Met	Glu	Ile	Gly	Ser	Val	Ala	His

				180					185					190			
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys		
				195				200					205				
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile		
				210				215					220				
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe		
225					230					235					240		
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile		
				245						250				255			
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<210> 4375
<211> 1966
<212> DNA
<213> Homo sapiens
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1080

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gcccgcatca ttgctgactc cataacttaat ctgtttggcc tggggctcat tgggcctgag
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<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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			20					25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40					45			
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50					55					60				
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70				75					80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
				85				90					95		
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
		100						105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
		115					120					125			
Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile

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Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
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Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
      165              170              175
Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
      180              185              190
Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
      195              200              205
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
      210              215              220
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
225              230              235              240
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
      245              250              255
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
      260              265              270
Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
      275              280              285
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
      290              295              300
Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
305              310              315              320
Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
      325              330              335
Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
      340              345              350
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
      355              360              365
Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
      370              375              380
Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
385              390              395

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<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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240
ggcaccttca cgggctactc cgccctggcc ctggccctgg cgctgcccgc ggacggggcg
300
gtggtgacct gcgaggtgga cgcgagcccc ccggagctgg gacggcccct gtggaggcag
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420

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<210> 4378
<211> 233
<212> PRT
<213> Homo sapiens
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<210> 4379
<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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 120
 ggggaggacc cggccccac ctgcctcacc cgcacggggc tgttcctgcg tttcctctgc
 180
 agccggttcc cgcggggcgc acagctgcgg ggcgcgctgc ggacgctgag cctcctggcc
 240
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 300
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 420
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 480
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 540
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 600
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 780
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 1980
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 2040
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 2160
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 2220
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 2340
 aaaaaaa
 2347

<210> 4380

<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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			20					25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
		35					40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
	50					55				60					
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65				70					75					80	
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
			85					90					95		
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
			100					105					110		
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
		115					120					125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

130		135		140	
Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala					
145		150		155	160
Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg					
	165		170		175
Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln					
	180		185		190
Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys					
	195		200		205
Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val					
	210		215		220
Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln					
225		230		235	240
Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr					
	245		250		255
Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His					
	260		265		270
Met Leu Pro Phe Trp Thr Asp Leu Cys Ser Ile Phe Gly Ser Asn Lys					
	275		280		285
Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu					
	290		295		300
Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln					
305		310		315	320
Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu					
	325		330		335
Xaa Pro Xaa Ala Leu Arg Gly His Lys Thr Val Thr Tyr Leu Thr Leu					
	340		345		350
Gln Gly Asn Asp Gln Asp Asp Met Phe Pro Ala Leu Cys Glu Val Leu					
	355		360		365
Arg His Pro Glu Cys Asn Leu Arg Tyr Leu Gly Leu Val Ser Cys Ser					
	370		375		380
Ala Thr Thr Gln Gln Trp Ala Asp Leu Ser Leu Ala Leu Glu Val Asn					
385		390		395	400
Gln Ser Leu Thr Cys Val Asn Leu Ser Asp Asn Glu Leu Leu Asp Glu					
	405		410		415
Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu					
	420		425		430
Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys					
	435		440		445
Asp Leu Ala Ala Val Leu Val Val Ser Arg Glu Leu Thr His Leu Cys					
	450		455		460
Leu Ala Lys Asn Pro Ile Gly Asn Thr Gly Val Lys Phe Leu Cys Glu					
465		470		475	480
Gly Leu Arg Tyr Pro Glu Cys Lys Leu Gln Thr Leu Val Leu Trp Asn					
	485		490		495
Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln					
	500		505		510
Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly					
	515		520		525
Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys					
	530		535		540
Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser					
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Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr					

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<210> 4381
<211> 1638
<212> DNA
<213> Homo sapiens
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3572

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 1200
 aagacagagg gttctcatga ttcacattgg ttgtgctatt gctgatgta tgctttgggt
 1260
 gcttggttg tcttttctga gtattttagt gttgccacct ggatttgctg cattgctctg
 1320
 ctgagctgta ttgaaacat gactgggccc actgtcagac agaaattaga ataggaggca
 1380
 cattttttac ctgggtggta tgagcatgga cttgggggcc acagtgactg agtttgattc
 1440
 ccgacacagc ctctccttg ctgtgtagtt ttgggtaagc ttattaaacc cccatgcctc
 1500
 agtttggtca cctgtaaaag gaaataacaa gagcacttac ttataagat tgatgtgagt
 1560
 attaatgaa ttaatatctg taaaacgctt agctcttaat aaatgtttct gttgttatta
 1620
 aaaaaaaaaa aaaaaaaaa
 1638

<210> 4382

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

Met	Ala	Gln	Tyr	Lys	Gly	Thr	Met	Arg	Glu	Ala	Gly	Arg	Ala	Met	His
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Leu	Leu	Lys	Lys	Arg	Glu	Arg	Gln	Arg	Glu	Gln	Met	Glu	Val	Leu	Lys
			20					25					30		
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
			35				40					45			
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
			50			55					60				
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65					70					75				80	
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
			85						90					95	
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
			100					105						110	
Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
			115				120					125			
Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
			130			135					140				
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145					150					155				160	
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
			165					170						175	
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
			180					185					190		
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
			195				200					205			
Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

```

      210      215      220
Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225      230      235      240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245      250      255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260      265      270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275      280      285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290      295      300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305      310      315      320
Lys Tyr Thr Ile Arg
      325

```

<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<400> 4383
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aaaatgaaat ataaagcgcc cactgactat tgctttgttt taaagcaccc ccaaattcag
120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
gtggcaaagg ctggacttgc ctctcggtag acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
360
caggctacac atttcttcag tgctgttctc caagaagccc agagacatgc tgaaaactn
419

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 4384
Arg Asp Leu Ala Cys Phe Ile Gln Phe Glu Asn Val Asn Ile Tyr Tyr
1      5      10      15
Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
      20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

```

				85				90					95		
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
			100					105					110		
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
		115					120					125			
Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
		130				135									

```
<210> 4385
<211> 754
<212> DNA
<213> Homo sapiens
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4400> 4385
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60
tcccggctgc tcaagcgggt gggaaggagc ggccactctt gctgaaaggt ggctgggaga
120
ggteectggtc agagtcggag tcagagtcctc aggaggggag tggaggggctc aggcactggg
180
gccccttggt gcctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtgaggg
240
tgtctatgga gttctgcagc acgtgcacag cagaccatat atcactcagt tccttctgga
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360
ctgtctcatg accctgctgc ttcatcttgg tcaggatttt gcggcatttc acctgcgttt
420
tctgcatttt ctgaatgttc accaagttct ctgagatctc atcctcctgc gcttcttcaa
480
gctgctgaat cttgatttgc tgcaagcagc tctccttctc caacatggtc actgagtggg
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600
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660
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720
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754

```

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<210> 4386
<211> 85
<212> PRT
<213> Homo sapiens
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<400> 4386
Gly Cys Leu Trp Ser Ser Ala Ala Arg Ala Gln Gln Thr Ile Tyr His
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Ser Val Pro Ser Gly Gly His Pro Ser Ser Ser His Trp Leu Pro Ala
  20             25             30
Val Ser Leu Gln Ser Pro Asp Arg Arg Leu Ser His Asp Pro Ala Ala
  35             40             45
Ser Ser Trp Ser Gly Phe Cys Gly Ile Ser Pro Ala Phe Ser Ala Phe

```

Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
65 70 75 80

Gln Ala Ala Glu Ser
 85

```
<210> 4387
<211> 341
<212> DNA
<213> Homo sapiens
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<400> 4387
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ggggcccccc aaaagggggg ggggggaagg gggttttccc accccaaaaa accccccccc
120
ccccccgggn gggggggaag gggggggggg tttttccccc ctcccccccc ccctaaaaaa
180
aaaaccggga aaattttttt tccccccccc ccaaaaaaaa aaaaaaaacc gggggggccc
240
cctttttttg gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
300
aaaacagaga atgtttattg tgccagaggg tggagtgtgc n
341
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```
<210> 4388
<211> 113
<212> PRT
<213> Homo sapiens
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<400> 4388
Gly Gly Gly Leu Pro Ile Phe Phe Pro Phe Met Gly Gly Gly Phe Phe
  1          5          10
Lys Lys Lys Gly Gly Pro Pro Gln Lys Gly Gly Gly Arg Gly Phe
  20          25          30
Ser His Pro Lys Lys Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
  35          40          45
Gly Gly Phe Phe Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
  50          55          60
Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
  65          70          75          80
Pro Phe Phe Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe Phe
  85          90          95
Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
  100          105          110
Val

```

```
<210> 4389
<211> 1895
<212> DNA
<213> Homo sapiens
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<400> 4389

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120
ccagcgggtgt acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc
180
gtggaacgac gcctgagtcg ccacgacgtc gtcacctcgg actcgcttaa ctacatcaaa
240
ggtttccgtt acgagctcta ctgcctggca cgggcggcgc gcaccccgct ctgcctggtc
300
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360
cctggccgga acgtcagtggt gagttggcgg ccacgcgctg aggaggacgg gagagcccag
420
gcggcgggca gcagcgtcct cagggaactg catactgcgg actctgtagt aaatggaagt
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720
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840
atggaagcgc agaagagcgc tgtccccggg gacttgctca cgcttctcgg taccacagag
900
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atttcgtaca ctaaaatgca tccaacaat gagaacttgc cgcaactggc caacatgttt
1020
cttcagtatt tgagccagag cctgcactaa ccagaggagg taggggggaa gccatggctt
1080
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1320
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1560
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1620

aataaaatct tttaaaatag tctactggaa tctctttcac ttaatgttcc ctgtgtaact
1680
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1740
tagttctgag agagtagatg ttttgagcta ctctacagta attatattat gacaatttcc
1800
gtaactgttt tgcttcattc tgcatttcaa ggcaaataac attgtaagct tgtctttcat
1860
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1895

<210> 4390
<211> 335
<212> PRT
<213> Homo sapiens

<400> 4390
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Asp Asp Ala Ala Val Leu Gly Ala Glu Asp Pro Ala Val Tyr Gly Asp
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Ser Ala Arg Glu Lys Ala Leu Arg Gly Ala Leu Arg Ala Ser Val Glu
35 40 45
Arg Arg Leu Ser Arg His Asp Val Val Ile Leu Asp Ser Leu Asn Tyr
50 55 60
Ile Lys Gly Phe Arg Tyr Glu Leu Tyr Cys Leu Ala Arg Ala Ala Arg
65 70 75 80
Thr Pro Leu Cys Leu Val Tyr Cys Val Arg Pro Gly Gly Pro Ile Ala
85 90 95
Gly Pro Gln Val Ala Gly Ala Asn Glu Asn Pro Gly Arg Asn Val Ser
100 105 110
Val Ser Trp Arg Pro Arg Ala Glu Glu Asp Gly Arg Ala Gln Ala Ala
115 120 125
Gly Ser Ser Val Leu Arg Glu Leu His Thr Ala Asp Ser Val Val Asn
130 135 140
Gly Ser Ala Gln Ala Asp Val Pro Lys Glu Leu Glu Arg Glu Glu Ser
145 150 155 160
Gly Ala Ala Glu Ser Pro Ala Leu Val Thr Pro Asp Ser Glu Lys Ser
165 170 175
Ala Lys His Gly Ser Gly Ala Phe Tyr Ser Pro Glu Leu Leu Glu Ala
180 185 190
Leu Thr Leu Arg Phe Glu Ala Pro Asp Ser Arg Asn Arg Trp Asp Arg
195 200 205
Pro Leu Phe Thr Leu Val Gly Ile Glu Glu Pro Leu Pro Pro Ala Gly
210 215 220
Ile Arg Ser Ala Leu Phe Glu Asn Arg Ala Pro Pro Pro His Gln Ser
225 230 235 240
Thr Gln Ser Gln Pro Leu Ala Ser Gly Ser Phe Leu His Gln Leu Asp
245 250 255
Gln Val Thr Ser Gln Val Leu Ala Gly Leu Met Glu Ala Gln Lys Ser
260 265 270
Ala Val Pro Gly Asp Leu Leu Thr Leu Pro Gly Thr Thr Glu His Leu
275 280 285
Arg Phe Thr Arg Pro Leu Thr Met Ala Glu Leu Ser Arg Leu Arg Arg

290		295		300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro				
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Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His				
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<210> 4391
 <211> 988
 <212> DNA
 <213> Homo sapiens

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 988

<210> 4392
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 4392
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Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro
35           40           45
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly
50           55           60
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser
65           70           75           80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro
85           90           95
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser
100          105          110
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg
115          120          125
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met
130          135          140
Ser Ala Met Glu Pro His His Val Asn Gly Ser Leu Gly Ser Gly Asp
145          150          155          160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser
165          170          175
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Ala Gly
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Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr
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Met Ser Val
210

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<210> 4393

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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420
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480
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aataaaaatga atggtacttt gactgctgtg gaaagtttcc tgactataca ttcaggacct
600

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720
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2171

<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394
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 35 40 45
 Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
 50 55 60
 Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Ile Cys Asp Ile Ala Asn
 65 70 75 80
 Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
 85 90 95
 Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
 100 105 110
 Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
 115 120 125
 Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
 130 135 140
 Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
 145 150 155 160
 Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
 165 170 175
 Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
 180 185 190
 Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
 195 200 205
 Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
 210 215 220
 Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
 225 230 235 240
 Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
 245 250 255
 Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
 260 265 270
 Tyr Ala Ala Tyr Val Thr Val Gly Gly Ile Thr Ser Val Ile Lys Leu
 275 280 285
 Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
 290 295 300
 Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
 305 310 315 320
 Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
 325 330 335
 Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
 340 345 350
 Asn Lys Pro Asn Ile Lys Ile Cys Thr Gln Val Lys Gly Pro Glu Ala
 355 360 365
 Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

370	375	380
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385	390	395
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Gly Ile Glu Phe Ser Val Ile Ser Ser Ser Glu Val		415
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<210> 4395
 <211> 1893
 <212> DNA
 <213> Homo sapiens

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<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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			20					25					30		
Ser	Gly	Asp	Leu	Pro	Gln	Ala	Ala	Ser	His	Leu	Gln	Glu	Leu	Leu	Ala
		35					40					45			
Ser	Thr	Glu	Ser	Ile	Arg	Leu	Glu	Val	Gly	Val	Thr	Gly	Glu	Ser	Gly
	50					55					60				
Ala	Gly	Lys	Ser	Ser	Leu	Ile	Asn	Ala	Leu	Arg	Gly	Leu	Glu	Ala	Glu
65					70					75				80	
Asp	Pro	Gly	Ala	Ala	Leu	Thr	Gly	Val	Met	Glu	Thr	Thr	Met	Gln	Pro
			85					90					95		
Ser	Pro	Tyr	Pro	His	Pro	Gln	Phe	Pro	Asp	Val	Thr	Leu	Trp	Asp	Leu
			100					105					110		
Pro	Gly	Ala	Gly	Ser	Pro	Gly	Cys	Pro	Ala	Asp	Lys	Tyr	Leu	Lys	Gln
		115				120						125			
Val	Asp	Phe	Ser	Arg	Tyr	Asp	Phe	Phe	Leu	Leu	Val	Ser	Pro	Arg	Arg
	130					135					140				
Cys	Gly	Ala	Val	Glu	Thr	Arg	Leu	Ala	Ala	Glu	Ile	Leu	Cys	Gln	Gly
145				150						155				160	
Lys	Lys	Phe	Tyr	Phe	Val	Arg	Thr	Lys	Val	Asp	Glu	Asp	Leu	Ala	Ala
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<210> 4397
<211> 2543
<212> DNA
<213> Homo sapiens
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<210> 4398

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4398

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Arg	Asp	Pro	Asp	Lys	Tyr	Cys	Pro	Ser	Tyr	Asn	Lys	Ser	Pro	Gln	Ser	35	40	45	
Asn	Ser	Pro	Val	Leu	Leu	Ser	Arg	Leu	His	Phe	Glu	Lys	Asp	Ala	Asp	50	55	60	
Ser	Ser	Glu	Arg	Ile	Ile	Ala	Pro	Met	Arg	Trp	Gly	Leu	Val	Pro	Ser	65	70	75	80
Trp	Phe	Lys	Glu	Ser	Asp	Pro	Ser	Lys	Leu	Gln	Phe	Asn	Thr	Thr	Asn	85	90	95	
Cys	Arg	Ser	Asp	Thr	Val	Met	Glu	Lys	Arg	Ser	Phe	Lys	Val	Pro	Leu	100	105	110	
Gly	Lys	Gly	Arg	Arg	Cys	Val	Val	Leu	Ala	Asp	Gly	Phe	Tyr	Glu	Trp	115	120	125	
Gln	Arg	Cys	Gln	Gly	Thr	Asn	Gln	Arg	Gln	Pro	Tyr	Phe	Ile	Tyr	Phe	130	135	140	
Pro	Gln	Ile	Lys	Thr	Glu	Lys	Ser	Gly	Ser	Ile	Gly	Ala	Ala	Asp	Ser	145	150	155	160
Pro	Glu	Asn	Trp	Glu	Lys	Val	Trp	Asp	Asn	Trp	Arg	Leu	Leu	Thr	Met	165	170	175	
Ala	Gly	Ile	Phe	Asp	Cys	Trp	Glu	Pro	Pro	Glu	Gly	Gly	Asp	Val	Leu	180	185	190	
Tyr	Ser	Tyr	Thr	Ile	Ile	Thr	Val	Asp	Ser	Cys	Lys	Gly	Leu	Ser	Asp	195	200	205	
Ile	His	His	Arg	Met	Pro	Ala	Ile	Leu	Asp	Gly	Glu	Glu	Ala	Val	Ser				

210 215 220
 Lys Trp Leu Asp Phe Gly Glu Val Ser Thr Gln Glu Ala Leu Lys Leu
 225 230 235 240
 Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val
 245 250 255
 Asn Asn Ser Arg Asn Asn Thr Pro Glu Cys Leu Ala Pro Val Asp Leu
 260 265 270
 Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu
 275 280 285
 Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro
 290 295 300
 Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln
 305 310 315 320
 Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln
 325 330 335
 Trp Leu Lys Arg Glu Lys Glu Glu Glu Pro Val Ala Lys Arg Pro Tyr
 340 345 350
 Ser Gln

<210> 4399
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4399
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 723

<210> 4400

<211> 241
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<210> 4401
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 <213> Homo sapiens

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<213> Homo sapiens

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 Gln Tyr Gly Arg Trp Ala Val Val Ser Gly Ala Thr Asp Gly Ile Gly
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<211> 4237

<212> DNA

<213> Homo sapiens

<400> 4403

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<400> 4404
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 180 185 190
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 195 200 205
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Ala	Arg	Val	Lys	Ile	Arg 565	Asp	Arg	Arg	Arg	Ser 570	Asn	Arg	Asn	Ser	Ile 575
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Gly 625	Asn	Ser	His	Lys	His 630	Lys	Gly	Glu	Ala	Lys 635	Glu	Gln	Glu	Arg	Lys 640
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<211> 918

<212> DNA

<213> Homo sapiens

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<211> 138

<212> PRT

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<210> 4407

<211> 974

<212> DNA

<213> Homo sapiens

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<210> 4408

<211> 158

<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly	Thr
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Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys	Pro
	50					55					60				
Pro	Pro	Gly	Val	Ala	Ser	Ala	Ser	Ala	Arg	Gly	Pro	Pro	Ala	Thr	Asp
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Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro	Cys
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Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys	His
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Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp	Cys
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	275					280					285				
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
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Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
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Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
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Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
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Met Asn Ala Asn Asn
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<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

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484

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 <212> PRT
 <213> Homo sapiens

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Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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<210> 4413

<211> 1097

<212> DNA

<213> Homo sapiens

<400> 4413

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<210> 4416
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<212> PRT
<213> Homo sapiens
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<400> 4416

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 Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35 40 45
 Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50 55 60
 Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
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 Val Gly Val Ile
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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
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Val Met Pro Ser Arg Asn Tyr Thr Pro Tyr Thr Arg Val Leu Glu Leu
245 250 255
Ser Ser Lys Lys Thr Leu Thr
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<210> 4419
<211> 369
<212> DNA
<213> Homo sapiens

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<210> 4420
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4420
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 Trp Cys Asp Leu Gly Ser Leu Gln Pro Pro Pro Gln Leu Lys Gln
 35 40 45
 Leu Ser Cys Pro Ser His Pro Ser Xaa Asn Tyr Arg Pro Val Pro Pro
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 His Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Tyr
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 Trp Pro Gly Arg Ser Gln Thr Pro Gly Pro Met
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<210> 4421
 <211> 1356
 <212> DNA
 <213> Homo sapiens

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<210> 4422

<211> 58

<212> PRT

<213> Homo sapiens

<400> 4422

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<210> 4423

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4423

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<212> PRT

<213> Homo sapiens

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Ser	His	His	Gln	Thr	Arg	Pro	Asp	Arg	Thr	His	Arg	Gln	His	Leu	Asp
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Asp	Val	Gly	Ala	Val	Pro	Met	Val	Glu	Arg	Val	Thr	Ala	Pro	Lys	Ala
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Gln Glu Ser Ala Ser Gly Gly Ser Ser His Ser Ser Ala Pro Asp Ser																				
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<210> 4427
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<212> DNA
<213> Homo sapiens
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<210> 4428

<211> 763

<212> PRT

<213> Homo sapiens

<400> 4428

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 35 40 45
 Val Ala Val Val Arg Ile Asn Ser Pro Asn Ser Lys Val Asn Thr Leu
 50 55 60
 Ser Lys Glu Leu His Ser Glu Phe Ser Glu Val Met Asn Glu Ile Trp
 65 70 75 80
 Ala Ser Asp Gln Ile Arg Ser Ala Val Leu Ile Ser Ser Lys Pro Gly
 85 90 95
 Cys Phe Ile Ala Gly Ala Asp Ile Asn Met Leu Ala Ala Cys Lys Thr
 100 105 110
 Leu Gln Glu Val Thr Gln Leu Ser Gln Glu Ala Gln Arg Ile Val Glu
 115 120 125
 Lys Leu Glu Lys Ser Thr Lys Pro Ile Val Ala Ala Ile Asn Gly Ser
 130 135 140
 Cys Leu Gly Gly Gly Leu Glu Val Ala Ile Ser Cys Gln Tyr Arg Ile
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 Ala Thr Lys Asp Arg Lys Thr Val Leu Gly Thr Pro Glu Val Leu Leu

165 170 175
 Gly Ala Leu Pro Gly Ala Gly Gly Thr Gln Arg Leu Pro Lys Met Val
 180 185 190
 Gly Val Pro Ala Ala Leu Asp Met Met Leu Thr Gly Arg Ser Ile Arg
 195 200 205
 Ala Asp Arg Ala Lys Lys Met Gly Leu Val Asp Gln Leu Val Glu Pro
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 Leu Gly Pro Gly Leu Lys Pro Pro Glu Glu Arg Thr Ile Glu Tyr Leu
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 Glu Glu Val Ala Ile Thr Phe Ala Lys Gly Leu Ala Asp Lys Lys Ile
 245 250 255
 Ser Pro Lys Arg Asp Lys Gly Leu Val Glu Lys Leu Thr Ala Tyr Ala
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 Met Thr Ile Pro Phe Val Arg Gln Gln Val Tyr Lys Lys Val Glu Glu
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 Lys Val Arg Lys Gln Thr Lys Gly Leu Tyr Pro Ala Pro Leu Lys Ile
 290 295 300
 Ile Asp Val Val Lys Thr Gly Ile Glu Gln Gly Ser Asp Ala Gly Tyr
 305 310 315 320
 Leu Cys Glu Ser Gln Lys Phe Gly Glu Leu Val Met Thr Lys Glu Ser
 325 330 335
 Lys Ala Leu Met Gly Leu Tyr His Gly Gln Val Leu Cys Lys Lys Asn
 340 345 350
 Lys Phe Gly Ala Pro Gln Lys Asp Val Lys His Leu Ala Ile Leu Gly
 355 360 365
 Ala Gly Leu Met Gly Ala Gly Ile Ala Gln Val Ser Val Asp Lys Gly
 370 375 380
 Leu Lys Thr Ile Leu Lys Asp Ala Thr Leu Thr Ala Leu Asp Arg Gly
 385 390 395 400
 Gln Gln Gln Val Phe Lys Gly Leu Asn Asp Lys Val Lys Lys Lys Ala
 405 410 415
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 420 425 430
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 Thr Thr Glu Lys Thr Ser Lys Asp Thr Ser Ala Ser Ala Val Ala Val
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 Gly Leu Lys Gln Gly Lys Val Ile Ile Val Val Lys Asp Gly Pro Gly
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 Ser Phe Gly Phe Pro Val Gly Ala Ala Thr Leu Val Asp Glu Val Gly
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595 600 605
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 Lys Gly Phe Leu Gly Arg Lys Ser Gly Lys Gly Phe Tyr Ile Tyr Gln
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 Glu Gly Val Lys Arg Lys Asp Leu Asn Ser Asp Met Asp Ser Ile Leu
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 Ala Ser Leu Lys Leu Pro Pro Lys Ser Glu Val Ser Ser Asp Glu Asp
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 Ile Gln Phe Arg Leu Val Thr Arg Phe Val Asn Glu Ala Val Met Cys
 675 680 685
 Leu Gln Glu Gly Ile Leu Ala Thr Pro Ala Glu Gly Asp Ile Gly Ala
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 Val Phe Gly Leu Gly Phe Pro Pro Cys Leu Gly Gly Pro Phe Arg Phe
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 Val Asp Leu Tyr Gly Ala Gln Lys Ile Val Asp Arg Leu Lys Lys Tyr
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<210> 4429

<211> 981

<212> DNA

<213> Homo sapiens

<400> 4429

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<210> 4430

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4430

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			20					25					30		
Ser	Ala	Leu	Pro	Gln	Val	Asn	Thr	Arg	Arg	Glu	Ser	Leu	Asn	Arg	Gln
		35					40					45			
Ala	Pro	Gln	Pro	Arg	Arg	Lys	Pro	Ser	Phe	Gln	Thr	Val	Gly	Ile	Pro
	50					55				60					
Phe	Ile	Pro	Trp	His	Arg	Glu	Pro	Lys	Gly	Met	Gln	Thr	Asp	Pro	Gly
65					70				75					80	
Arg	Ala	Leu	His	Ser	Gln	Thr	Leu	Ala	Arg	Thr	Arg	Arg	Leu	Gly	Ala
			85					90					95		
Pro	Arg	Arg	Ala	Leu	Pro	Pro	Arg	Pro	Pro	Pro	Pro	Ala	Asp	Ser	Pro
			100					105					110		
Leu	Cys	Glu	Leu	Asn	His	Leu	Gly	Ala	Met	Cys	Arg	Gly	Arg	Ala	Ser
		115					120					125			
Ala	Ser	Glu	Val	Leu	Gly	Gly	Pro	Val	Thr	Ala	Ser	Arg	Phe	Tyr	Gly
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<210> 4431

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4431

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<210> 4432

<211> 57

<212> PRT

<213> Homo sapiens

<400> 4432

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Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
			20				25						30		
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
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<210> 4433

<211> 447

<212> DNA

<213> Homo sapiens

<400> 4433

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<210> 4434

<211> 149

<212> PRT

<213> Homo sapiens

<400> 4434

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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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<210> 4436

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4436

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Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
      35           40           45
Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
      50           55           60
Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
      65           70           75           80
Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
      85           90           95
Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
      100          105          110
Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
      115          120          125
Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
      130          135          140
Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
      145          150          155          160
Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
      165          170          175
Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
      180          185          190
Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
      195          200          205
Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
      210          215          220
Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
      225          230          235          240
Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
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Glu Glu Met Ile Leu
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<210> 4437

<211> 620

<212> DNA

<213> Homo sapiens

<400> 4437

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240

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<210> 4438

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4438

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Lys	Arg	Asp	Val	Val	Lys	Thr	Ile	Arg	Glu	Val	Gln	Pro	Asp	Val	Val
			20					25					30		
Val	Val	Glu	Leu	Cys	Gln	Tyr	Arg	Val	Ser	Met	Leu	Lys	Met	Asp	Glu
		35					40					45			
Ser	Thr	Leu	Leu	Arg	Glu	Ala	Gln	Glu	Leu	Ser	Leu	Glu	Lys	Leu	Gln
		50				55					60				
Gln	Ala	Val	Arg	Gln	Asn	Gly	Leu	Met	Ser	Gly	Leu	Met	Gln	Met	Leu
65					70				75						80
Leu	Leu	Lys	Val	Ser	Ala	His	Ile	Thr	Glu	Gln	Leu	Gly	Met	Ala	Pro
			85					90					95		
Gly	Gly	Glu	Phe	Arg	Glu	Ala	Phe	Lys	Glu	Ala	Ser	Lys	Val	Pro	Phe
		100						105					110		
Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
		115					120					125			
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
		130					135					140			
Leu	Cys	Phe	Leu	Ser	Asp	Pro	Ile	Ser	Lys	Asp	Asp	Val	Glu	Arg	Cys
145					150					155					160
Lys	Gln	Lys	Asp	Leu	Leu	Glu	Gln	Met	Met	Ala	Glu	Met	Ile	Gly	Glu
			165					170					175		
Phe	Pro	Asp	Leu	His	Arg	Thr	Ile	Val	Ser	Glu	Arg	Asp	Val	Tyr	Leu
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Thr	Tyr	Met	Leu	Arg	Gln	Ala	Ala	Arg	Arg	Leu	Glu	Leu	Pro		
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<210> 4439

<211> 2121

<212> DNA

<213> Homo sapiens

<400> 4439

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360
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540
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720
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1620

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 1980
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 2100
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<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Leu	Arg	Phe	Ala	Phe	Ile	Asp	Val	Gly	Ile	Phe	Arg	Asn	Ser	Ala	Pro
			20					25					30		
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
			35					40					45		
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
			50					55				60			
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
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Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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<212> PRT
<213> Homo sapiens
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			20					25					30		
Trp	Lys	Glu	Lys	Val	Leu	Trp	Ala	Leu	Leu	Ala	Val	Leu	Leu	Ala	Ser
		35					40					45			
Trp	Arg	Leu	Trp	Ala	Ile	Lys	Asp	Phe	Gln	Glu	Cys	Thr	Trp	Gln	Val
	50					55					60				
Val	Leu	Asn	Glu	Phe	Lys	Arg	Val	Gly	Glu	Ser	Gly	Val	Ser	Asp	Ser
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Phe	Phe	Glu	Gln	Glu	Pro	Val	Asp	Thr	Val	Ser	Ser	Leu	Phe	His	Met
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Leu	Val	Asp	Ser	Pro	Ile	Asp	Pro	Ser	Glu	Lys	Tyr	Leu	Gly	Phe	Pro
			100					105					110		
Tyr	Tyr	Leu	Lys	Ile	Asn	Tyr	Ser	Cys	Glu	Glu	Lys	Pro	Ser	Glu	Asp
		115					120					125			
Leu	Val	Arg	Met	Gly	His	Leu	Thr	Gly	Leu	Lys	Pro	Leu	Val	Leu	Val
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Thr	Phe	Gln	Ser	Pro	Val	Asn	Phe	Tyr	Arg	Trp	Lys	Ile	Glu	Gln	Leu
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Gln	Ile	Gln	Met	Glu	Ala	Ala	Pro	Phe	Arg	Ser	Lys	Gly	Gly	Pro	Gly
				165					170					175	
Gly	Gly	Gly	Arg	Asp	Arg	Asn	Leu	Ala	Gly	Met	Asn	Ile	Asn	Gly	Phe
			180					185				190			
Leu	Lys	Arg	Asp	Arg	Asp	Asn	Asn	Ile	Gln	Phe	Thr	Val	Gly	Glu	Glu
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Leu	Phe	Asn	Leu	Met	Pro	Gln	Tyr	Phe	Val	Gly	Val	Ser	Ser	Arg	Pro
	210					215					220				
Leu	Trp	His	Thr	Val	Asp	Gln	Ser	Pro	Val	Leu	Ile	Leu	Gly	Gly	Ile
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Pro	Asn	Glu	Lys	Tyr	Val	Leu	Met	Thr	Asp	Thr	Ser	Phe	Lys	Asp	Phe
				245					250					255	
Ser	Leu	Val	Glu	Val	Asn	Gly	Val	Gly	Gln	Met	Leu	Ser	Ile	Asp	Ser
		260						265					270		
Cys	Trp	Val	Gly	Ser	Phe	Tyr	Cys	Pro	His	Ser	Gly	Phe	Thr	Ala	Thr
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Ile	Tyr	Asp	Thr	Ile	Ala	Thr	Glu	Ser	Thr	Leu	Phe	Ile	Arg	Gln	Asn
	290					295					300				
Gln	Leu	Val	Tyr	Tyr	Phe	Thr	Gly	Thr	Tyr	Thr	Thr	Leu	Tyr	Glu	Arg
305					310					315					320
Asn	Arg	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala	Gly	Pro	Thr	Pro	Gly	Glu

325 330 335
 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
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<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

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720

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 901

<210> 4446
 <211> 140
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<400> 4446
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 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
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<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 240
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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			20					25					30		
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu	Gly
			35				40					45			
Gln	Ser	Leu	Val	Ser	Arg	Leu	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu
			50			55					60				
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly	Ser
65					70					75				80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
				85				90					95		
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
			100					105					110		
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
			115				120					125			
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
						135					140				
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro	Val
145					150					155				160	
Arg	Gly	Leu	Cys	Pro	Phe	Ala	Pro	Arg	Asn	Ser	Asn	Thr	Met	Ala	Ala
				165				170					175		
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly	Val
			180					185					190		
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val	Glu
			195				200					205			
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His	Thr
			210			215					220				
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala	Thr

225		230		235		240
Val Thr Ala Phe Trp Arg Ser Leu Leu Ala Cys Cys Gln Leu Pro Ser						
		245		250		255
Arg Pro Gly Ile His Leu Cys						
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<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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1140
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1260

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aactccacag ttcctggagc tgattctatt cctgatcctg aactaagtgg agaatctttg
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<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 20 25 30
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 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
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 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 180
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 240
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1637

<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

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Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
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Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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180

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 360
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<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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Pro	Gly	Trp	His	Ile	Tyr	Thr	His	Ser	Gly	Ser	Glu	Arg	Leu	Val	Asn
			20					25					30		
Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys
	35						40					45			
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg
	50					55					60				
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln
65					70					75				80	
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg
			85					90					95		
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala
			100					105					110		
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser
	115						120					125			
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys
	130					135					140				
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu
145					150					155				160	
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln
			165					170					175		
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu
			180					185					190		
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg	
	195						200						205		

<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 180
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 300
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 360
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 420
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 480
 gggaacatcg aggagtgcac catcctgcgc gggcccgacg gcaacagcaa ggggtgcgcc
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 720
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 780
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<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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 Ile Tyr Glu Leu Thr Val Leu Lys Asp Arg Phe Thr Gly Met His Lys
 35 40 45
 Gly Cys Ala Phe Leu Thr Tyr Cys Glu Arg Glu Ser Ala Leu Lys Ala
 50 55 60
 Gln Ser Ala Leu His Glu Gln Lys Thr Leu Pro Gly Met Asn Arg Pro
 65 70 75 80
 Ile Gln Val Lys Pro Ala Asp Ser Glu Ser Arg Gly Asp Ser Ser Cys
 85 90 95
 Leu Arg Gln Pro Pro Ser His Arg Lys Leu Phe Val Gly Met Leu Asn

	100		105		110										
Lys	Gln	Gln	Ser	Glu	Asp	Asp	Val	Arg	Arg	Leu	Phe	Glu	Ala	Phe	Gly
	115						120					125			
Asn	Ile	Glu	Glu	Cys	Thr	Ile	Leu	Arg	Gly	Pro	Asp	Gly	Asn	Ser	Lys
	130						135					140			
Gly	Cys	Ala	Phe	Val	Lys	Tyr	Ser	Ser	His	Ala	Glu	Ala	Gln	Ala	Ala
145						150					155				160
Ile	Asn	Ala	Leu	His	Gly	Ser	Gln	Thr	Met	Pro	Gly	Ala	Ser	Ser	Ser
				165					170						175
Leu	Val	Val	Lys	Phe	Ala	Asp	Thr	Asp	Lys	Glu	Arg	Thr	Met	Arg	Arg
			180					185					190		
Met	Gln	Gln	Met	Ala	Gly	Gln	Met	Gly	Met	Phe	Asn	Pro	Met	Ala	Ile
	195						200					205			
Pro	Phe	Gly	Ala	Tyr	Gly	Ala	Tyr	Ala	Gln	Ala	Leu	Met	Gln	Gln	Gln
	210					215						220			
Ala	Ala	Leu	Met	Ala	Ser	Val	Ala	Gln	Gly	Gly	Tyr	Leu	Asn	Pro	Met
225						230				235					240
Ala	Ala	Phe	Ala	Ala	Ala	Gln	Met	Gln	Gln	Met	Ala	Ala	Leu	Asn	Met
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Asn	Gly	Leu	Ala	Ala											
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<210> 4457

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4457

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180
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780

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 1380
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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		20					25					30			
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35				40					45				
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50				55					60					
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65				70					75				80		
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85					90					95		
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
		100						105				110			
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
		115				120					125				
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
	130				135					140					
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145				150					155				160		
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
			165					170					175		
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

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<210> 4459
<211> 1114
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
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360
ccaaagcaaa gcagatgagg tcagcctggc ttggggtgag ggctcagtgc ctcttagcct
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480
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540

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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro
			20					25					30	Ser
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys
		35					40					45		Pro
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro
	50					55					60			Arg
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu
65					70				75					80
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu
			85					90						95
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met
		100						105					110	Pro
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val						
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 360
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<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35					40					45			
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
		50				55					60				
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65					70					75				80	
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
			85					90						95	

<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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 120
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 180
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 240
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 300
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 2662

<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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Glu	Leu	Arg	Arg	Glu	Arg	Arg	Met	Val	Cys	Val	Glu	Tyr	Pro	Gly	Val
		20					25						30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
		35				40					45				
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
	50					55				60					
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65			70			75							80		
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
			85			90							95		
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
		100				105						110			
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
	115					120					125				
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
	130				135					140					
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145			150						155				160		
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
			165					170					175		
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
		180						185				190			
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

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Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg
      225              230              235              240
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
      245              250              255
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
      260              265              270
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
      275              280              285
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
      290              295              300
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
      305              310              315              320
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
      325              330              335
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
      340              345              350
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
      355              360              365
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
      370              375              380
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
      385              390              395              400
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
      405              410              415
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
      420              425              430
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
      435              440              445
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
      450              455              460
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
      465              470              475              480
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu Glu
      485              490              495
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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ngcgccgtgg ggctagtga cgccgtgaag gccaccgacc agtactgcgc ccgcctccgc
180

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caggccggct cggccgcgcc ccggccaccg cgggcccagc agccacagca gccatcccaa
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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
		20						25					30		
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
		35					40					45			
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
	50					55					60				
Ala	Ala	Pro	Arg	Pro	Pro	Arg	Ala	Gln	Gln	Pro	Gln	Gln	Pro	Ser	Gln

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Glu	Lys	Phe	Tyr	Ser	Met	Ala	Ala	Arg	Ser	Ser	Tyr	Ser
				85				90				

<210> 4467
 <211> 1142
 <212> DNA
 <213> Homo sapiens

<400> 4467
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<210> 4468
 <211> 170
 <212> PRT

<213> Homo sapiens

<400> 4468

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          20           25           30
Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
      35           40           45
Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
      50           55           60
Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
65           70           75           80
Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
          85           90           95
Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
          100          105          110
Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
          115          120          125
Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
          130          135          140
Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
145          150          155          160
Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

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	20	25	30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu			
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Glu Ser Arg Arg Trp Thr Thr			
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<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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1020
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1080
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1140
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1200

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 1560
 tcttgacccc caagtcttca accagatatc ctcggaacc cacctccac cctcctctc
 1620
 ttctccttca agacccaact gagcacccgc tctgattccc cacagccttt ctccctgcca
 1680
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<210> 4472

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4472

Met	Glu	Ile	Pro	Val	Pro	Val	Gln	Pro	Ser	Trp	Leu	Arg	Arg	Ala	Ser
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Ala	Pro	Leu	Pro	Gly	Leu	Ser	Ala	Pro	Gly	Arg	Leu	Phe	Asp	Gln	Arg
			20					25					30		
Phe	Gly	Glu	Gly	Leu	Leu	Glu	Ala	Glu	Leu	Ala	Ala	Leu	Cys	Pro	Thr
			35				40					45			
Thr	Leu	Ala	Pro	Tyr	Tyr	Leu	Arg	Ala	Pro	Ser	Val	Ala	Leu	Pro	Val
			50			55					60				
Ala	Gln	Val	Pro	Thr	Asp	Pro	Gly	His	Phe	Ser	Val	Leu	Leu	Asp	Val
65					70					75				80	
Lys	His	Phe	Ser	Pro	Glu	Glu	Ile	Ala	Val	Lys	Val	Val	Gly	Glu	His
			85					90					95		
Val	Glu	Val	His	Ala	Arg	His	Glu	Glu	Arg	Pro	Asp	Glu	His	Gly	Phe
			100				105					110			
Val	Ala	Arg	Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Pro	Gly	Val	Asp
			115				120					125			
Pro	Ala	Ala	Val	Thr	Ser	Ala	Leu	Ser	Pro	Glu	Gly	Val	Leu	Ser	Ile
			130			135					140				
Gln	Ala	Ala	Pro	Ala	Ser	Ala	Gln	Ala	Pro	Pro	Pro	Ala	Ala	Ala	Lys
145					150					155				160	

<210> 4473

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4473

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 120
 ttggttaagg aaatgaccaa ccagtacggt attctcttca aacaagagca agcccatgat
 180
 gatgccattt ggtcagttgc ttgggggaca aacaagaagg aaaactctga gacagtggtc
 240
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 300
 cagtggagtc tggagggaca tcagctggga gtggtgtctg tggacatcag ccacaccctt
 360
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 420
 aaacagatga agtctataga tgcaggaccg gtggatgcct ggactttggc attctctccg
 480
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 540
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 600
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 660
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 720
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 780
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 840
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 900
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 1020
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 gagaatgtac ggattgatca tgacattcct taccttctta ggcttggtta aaagaaatat
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 agcatttatt gtagcaaaga cttaaatttt gtagatacaa tatgaatctt ttcagtttt
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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

Met	Thr	Asn	Gln	Tyr	Gly	Ile	Leu	Phe	Lys	Gln	Glu	Gln	Ala	His	Asp
1				5					10					15	
Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
				20					25					30	
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
 275 280 285
 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
 290 295 300
 Ile
 305

<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 120
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 180
 tggcgctctg gggcaagggc tgacttgagc tgcttctgtc gtcacatctg tgtctgccg
 240
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 300
 ctttaggggg taggcacatc cctgtttgcg ccttgccccg acagcctcgt caatgcccg
 360

ccacttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctcgcg
 420
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 475

<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 20 25 30
 Ser Arg Arg Ser Ser Ser Ser Gln Pro Leu Pro Gln Ser Ala Arg Thr
 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
 100 105

<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 120
 taggccaggg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc
 180
 aagcaccaag ttctcacaag ttatattatg tgactttgca ggaactgagg cattatatct
 240
 gaggacacca ggggaaaagt gtggcatctc agggaaatac agccctgggc tgtgtctaca
 300
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 360
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 420
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 480
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 540
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 660

agtcaactta cactttttcc ttcttcattc acaaagctct tcttccttgg gccctgggtat
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 780
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 1020
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 1153

<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

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Lys	Thr	Glu	Tyr	Gln	Glu	Ser	Glu	Phe	Leu	Ser	Pro	Ala	Tyr	Ser	Asp
		20						25					30		
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
		35						40					45		
Trp	Glu	Gly	Asn	Met	Lys	Glu	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr
	50							55					60		
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65						70				75					80
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
				85						90				95	
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
				100					105					110	
Leu	Gln	Ser	His	Ile	Lys										
				115											

<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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 120
 ggcggccccc gcgcagcaca gggagagatg agcagcacca gcagtaagag ggctccgacc
 180

acggcaaccc agaggctgaa gcaggactac ctctgcatta agaaagaccc ggtgccttac
240
atctgtgccg agccccctccc ttccaatatt ctcgagtggc actatgtcgt ccgaggccca
300
gagatgaccc cttatgaagg tggctattac catggaaaac taatttttcc cagagaattt
360
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540
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600
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660
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720
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780
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 1980
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 2040
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 2158

<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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Gly	Cys	Phe	Gly	Arg	Gly	Pro	Arg	Phe	Ser	Ala	Pro	Cys	Ser	Gly	Leu
		20						25					30		
Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
		35					40					45			
Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50					55					60				
Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr
65				70					75					80	
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
			85					90						95	
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
			100					105						110	
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
		115					120						125		
Met	Ile	Thr	Pro	Asn	Gly	Arg	Phe	Lys	Cys	Asn	Thr	Arg	Leu	Cys	Leu
	130				135						140				
Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val
145					150					155				160	
Ser	Thr	Ile	Leu	Thr	Gly	Leu	Leu	Ser	Phe	Met	Val	Glu	Lys	Gly	Pro
			165					170						175	
Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala
			180					185					190		
Val	Gln	Ser	Leu	Ala	Phe	Asn	Leu	Lys	Asp	Lys	Val	Phe	Cys	Glu	Leu
		195					200					205			
Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
	210					215					220				
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
225					230					235				240	
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
			245					250						255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
		260					265					270			
Arg	His	His	Gly	Leu	Leu	Gly	Gly	Ala	Leu	Ala	Asn	Leu	Phe	Val	Ile

275 280 285
 Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
 290 295 300
 Ile Ala Gln Glu
 305

<210> 4481
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 4481
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 ggggtggggcc tcggaacctc ctgctgtgca gccagaaaac aggactcggc ctgtccaccc
 120
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 180
 ggtgtgcctg acagcagggg agggcccaga gctggccttg gccatgtcca gtcctaatt
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 300
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 320

<210> 4482
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4482
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 Trp Gly Leu Gly Thr Ser Cys Cys Ala Ala Arg Lys Gln Asp Ser Ala
 20 25 30
 Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
 35 40 45
 Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
 50 55 60
 Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
 65 70 75 80
 Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
 85 90 95
 Arg Met Gly Thr Gln
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<210> 4483
 <211> 1852
 <212> DNA
 <213> Homo sapiens

<400> 4483
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120
ggaggatctc ggatgacaga cctaacttcc agcattccca aacctctgct tccagttggg
180
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240
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300
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420
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480
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720
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1440
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1680

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 1852

<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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Thr	Asp	Leu	Thr	Ser	Ser	Ile	Pro	Lys	Pro	Leu	Leu	Pro	Val	Gly	Asn
		20						25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
		35					40					45			
Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
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 355 360 365
 Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
 370 375 380
 Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
 385 390 395 400
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 405 410 415
 Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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<210> 4485

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4485

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<210> 4486

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4486

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 20 25 30
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          35          40          45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
          50          55          60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
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 <211> 387
 <212> DNA
 <213> Homo sapiens

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240
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<210> 4488
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 <212> PRT
 <213> Homo sapiens

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          20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
          35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
          50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
          85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
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Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
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Gly

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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
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Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
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Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
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Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

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Cys	Val	Thr	Asn	Ala	Met	Arg	Glu	Asp	Leu	Ala	Asp	Asn	Trp	His	Ile		
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Arg	Ala	Val	Thr	Val	Tyr	Asp	Lys	Pro	Ala	Ser	Phe	Phe	Lys	Glu	Thr		
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Thr	Leu	Asp	Gly	His	Asn	Leu	Pro	Ser	Leu	Val	Cys	Val	Ile	Thr	Gly		
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Phe	Gln	His	Ile	Gln	Val	Cys	Thr	Pro	Trp	Leu	Glu	Ala	Glu	Asp	Tyr		
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Pro	Leu	Leu	Leu	Gly	Ser	Ala	Asp	Leu	Gly	Val	Cys	Leu	His	Thr	Ser		
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Ser	Ser	Gly	Leu	Asp	Leu	Pro	Met	Lys	Val	Val	Asp	Met	Phe	Gly	Cys		
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Cys	Leu	Pro	Val	Cys	Ala	Val	Asn	Phe	Lys	Cys	Leu	His	Glu	Leu	Val		
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Lys	His	Glu	Glu	Asn	Gly	Leu	Val	Phe	Glu	Asp	Ser	Glu	Glu	Leu	Ala		
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Ala	Gln	Leu	Gln	Met	Leu	Phe	Ser	Asn	Phe	Pro	Asp	Pro	Ala	Gly	Lys		
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Leu	Asn	Gln	Phe	Arg	Lys	Asn	Leu	Arg	Glu	Ser	Gln	Gln	Leu	Arg	Trp		
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360

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<210> 4492

<211> 674

<212> PRT

<213> Homo sapiens

<400> 4492

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Gln Lys Asp Ile Lys Asp Leu Gly Gly Arg Val Glu Glu Phe Leu Ser
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Gln Thr Leu Gly Arg Ile Ser Pro Val Pro Ser Pro Glu Ser Ala Tyr
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<210> 4493

<211> 1829

<212> DNA

<213> Homo sapiens

<400> 4493

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<210> 4494

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4494

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Asp Leu Ile Ser Glu Glu Thr Asp Pro Lys Ile Ile Thr Ala Gly Asn
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Leu Val His Leu Ala Leu Arg Phe Lys Cys Asn Gln Asn Cys Pro Gln
          50           55           60
Gly Pro Ala Ile Lys Ala Leu Ser Leu Ser Thr Phe Trp Tyr Leu Val
65           70           75           80
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<210> 4495

<211> 3623

<212> DNA

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<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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 Gln Ser Pro Pro Tyr Tyr Arg Cys Val Cys Lys His Pro Tyr Thr Gly
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<212> DNA

<213> Homo sapiens

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<210> 4498

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<213> Homo sapiens

<400> 4498

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 85 90 95
 Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Glu Ser Pro
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 Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu
 115 120 125
 Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr
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 Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr
 145 150 155 160
 Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg
 165 170 175
 Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp
 180 185 190
 Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe
 195 200 205
 Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala
 210 215 220
 Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala
 225 230 235 240
 Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg
 245 250 255
 Gly Gly Ile Cys Ala Pro Pro Leu Ser Pro Gly Ala Leu Gln Pro Leu
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4500

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			20					25					30		
His	Gly	Leu	Ser	Pro	Leu	Asn	Val	Ile	Ala	Glu	Asp	Gly	Thr	Met	Thr
		35				40						45			
Ser	Leu	Cys	Gly	Asp	Trp	Leu	Gln	Gly	Leu	His	Arg	Phe	Val	Ala	Arg
	50					55				60					
Glu	Lys	Ile	Met	Ser	Val	Leu	Ser	Glu	Arg	Gly	Leu	Phe	Arg	Gly	Leu
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<210> 4501

<211> 1866

<212> DNA

<213> Homo sapiens

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
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Gly	Ala	Cys	Phe	Glu	Val	Ile	Leu	Ile	Ser	Asp	Ala	Asn	Thr	Phe	Gly				
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Ile	Leu	Ser	Asn	Pro	Ser	Gly	Pro	Asp	Ala	Arg	Gly	Leu	Leu	Ala	Leu				
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			165						170					175					
Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly				
			180					185					190						
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	195						200					205							
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Ser	Ser	Phe	Arg	Ala	Ser	Val	Val	Pro	Trp	Glu	Thr	Ala	Ala	Asp	Val				
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<212> DNA
<213> Homo sapiens
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660

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 780
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 1983

<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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 35 40 45
 Lys Lys Ile Ile Glu Thr Lys Met Leu Met Gly Glu Val Met Arg Glu
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 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
 65 70 75 80
 Thr Thr Val Ile Gln Asn Val Asn Lys Ala Gln Val Lys Ile Arg Ala
 85 90 95
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
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 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
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 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
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 145 150 155 160
 Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu
 165 170 175
 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
 180 185 190
 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
 195 200 205
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
 35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
 50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
 65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<210> 4508

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4508

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Met	Leu	Ala	Glu	Arg	Arg	Glu	Glu	Arg	Arg	Ala	Ser	Tyr	Asp	Tyr	Asn
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Gln	Asp	Arg	Thr	Tyr	Tyr	Glu	Ser	Val	Arg	Thr	Pro	Gly	Thr	Tyr	Pro
225					230					235					240
Glu	Asp	Ser	Arg	Arg	Asp	Tyr	Pro	Ala	Arg	Gly	Arg	Glu	Phe	Tyr	Ser
			245					250						255	
Glu	Trp	Glu	Thr	Tyr	Gln	Gly	Asp	Tyr	Tyr	Glu	Ser	Arg	Tyr	Tyr	Asp
		260					265						270		
Asp	Pro	Arg	Glu	Tyr	Arg	Asp	Tyr	Arg	Asn	Asp	Pro	Tyr	Glu	Gln	Asp
		275					280					285			
Ile	Arg	Glu	Tyr	Ser	Tyr	Arg	Gln	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
		290				295					300				
Arg	Phe	Glu	Ser	Asp	Arg	Asp	Arg	Asp	His	Glu	Arg	Arg	Pro	Ile	Glu
305				310					315						320
Arg	Ser	Gln	Ser	Pro	Val	His	Leu	Arg	Arg	Pro	Gln	Ser	Pro	Gly	Ala
			325					330						335	
Ser	Pro	Ser	Gln	Ala	Glu	Arg	Leu	Pro	Ser	Asp	Ser	Glu	Arg	Arg	Leu
		340					345					350			
Tyr	Ser	Arg	Ser	Ser	Asp	Arg	Ser	Gly	Ser	Cys	Ser	Ser	Leu	Ser	Pro
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Pro	Arg	Tyr	Glu	Lys	Leu	Asp	Lys	Ser	Arg	Leu	Glu	Arg	Tyr	Thr	Lys
		370				375					380				
Asn	Glu	Lys	Thr	Asp	Lys	Glu	Arg	Thr	Phe	Asp	Pro	Glu	Arg	Val	Glu
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Arg	Glu	Arg	Arg	Leu	Ile	Arg	Lys	Glu	Lys	Val	Glu	Lys	Asp	Lys	Thr
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Asp	Lys	Gln	Lys	Arg	Lys	Gly	Lys	Val	His	Ser	Pro	Ser	Ser	Gln	Ser
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Ser	Glu	Thr	Asp	Gln	Glu	Asn	Glu	Arg	Glu	Gln	Ser	Pro	Glu	Lys	Pro
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Arg	Ser	Cys	Asn	Lys	Leu	Ser	Arg	Glu	Lys	Ala	Asp	Lys	Glu	Gly	Ile
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Ala	Lys	Asn	Arg	Leu	Glu	Leu	Met	Pro	Cys	Val	Val	Leu	Thr	Arg	Val
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Lys	Glu	Lys	Glu	Gly	Lys	Val	Ile	Asp	His	Thr	Pro	Val	Glu	Lys	Leu
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Lys	Ala	Lys	Leu	Asp	Asn	Asp	Thr	Val	Lys	Ser	Ser	Ala	Leu	Asp	Gln

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 Ala Gly Glu Ser Val Glu Asn Gln Glu Val Gln Ser Lys Lys Pro Ile
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 Pro Ser Lys Pro Gln Leu Lys Gln Leu Gln Val Leu Asp Asp Gln Gly
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 Thr Pro Glu Arg Lys Ser Gly Gln Glu Lys Ser His Ser Val Asn Thr
 740 745 750
 Glu Glu Lys Ile Gly Ile Asp Ile Asp His Thr Gln Ser Tyr Arg Lys
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 Gln Met Glu Gln Ser Arg Arg Lys Gln Gln Met Glu Met Glu Ile Ala
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 Lys Ser Glu Lys Phe Gly Ser Pro Lys Lys Asp Val Asp Glu Tyr Glu
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 Asp Asp Ser Pro Pro Ser Lys Lys Lys Arg Met Asp His Val Asp Phe
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 Asp Ile Cys Thr Lys Arg Glu Arg Asn Tyr Arg Ser Ser Arg Gln Ile
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 Ser Glu Asp Ser Glu Arg Thr Gly Gly Ser Pro Ser Val Arg His Gly
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 Ser Phe His Glu Asp Glu Asp Pro Ile Gly Ser Pro Arg Leu Leu Ser
 865 870 875 880
 Val Lys Gly Ser Pro Lys Val Asp Glu Lys Val Leu Pro Tyr Ser Asn
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 Ile Thr Val Arg Glu Glu Ser Leu Lys Phe Asn Pro Tyr Asp Ser Ser
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 Arg Arg Glu Gln Met Ala Asp Met Ala Lys Ile Lys Leu Ser Val Leu
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 Asn Ser Glu Asp Glu Leu Asn Arg Trp Asp Ser Gln Met Lys Gln Asp

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Ala Gly Arg Phe Asp Val Ser Phe Pro Asn Ser Ile Ile Lys Arg Asp		
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Ser Leu Arg Lys Arg Ser Val Arg Asp Leu Glu Pro Gly Glu Val Pro		
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Asn Asn Lys Asp Lys Glu Lys Val Asp Ser Ala Pro Arg Pro Ile Pro		
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Ser Trp Tyr Met Lys Lys Lys Lys Ile Arg Thr Asp Ser Glu Gly Lys		
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Glu Leu Phe Ala Ser Arg Phe Leu His Ser Ser Ile Phe Glu Gln Asp		
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Ile Ser Gly Arg Ile Tyr Gly Lys Gln Thr Ser Glu Gly Ala Asn Ser		
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Thr Thr Asp Ser Ile Gln Glu Pro Val Val Leu Phe His Ser Arg Phe		
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Met Glu Leu Thr Arg Met Gln Gln Lys Lys Lys Glu Lys Asp Gln Lys		
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	1220	1225
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Ser Ala Leu Glu Lys Thr Thr Gly Asp Lys Thr Val Glu Ala Pro Leu		
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Val Thr Glu Glu Lys Thr Val Glu Pro Ala Thr Val Ser Glu Glu Ala		
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Lys Pro Ala Ser Glu Pro Ala Pro Ala Pro Val Glu Gln Leu Glu Gln		
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Val Asp Leu Pro Pro Gly Ala Asp Pro Asp Lys Glu Ala Ala Met Met		
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Asn Val Asp Pro Glu Pro Asp Ser Thr Gln Pro Leu Ser Lys Pro Ala		
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Gln Lys Ser Glu Glu Ala Asn Glu Pro Lys Ala Glu Lys Pro Asp Ala		

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 Val Gln Ala Ala Ala Val Ser Ile Val Glu Lys Pro Val Thr Arg Lys
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 Ser Glu Arg Ile Asp Arg Glu Lys Leu Lys Arg Ser Asn Ser Pro Arg
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 Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile
 1460 1465 1470
 Thr Arg Thr Ala Ser Lys Asn Ser Ala Ala Asp Leu Glu His Pro Glu
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 Pro Ser Leu Pro Leu Ser Arg Thr Arg Arg Arg Asn Val Arg Ser Val
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 Thr Arg Arg Arg Ala Asp Glu Glu Glu Glu Asn Glu Ala Lys Glu Pro
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 Pro Lys Val Asp Ala Thr Arg Pro Glu Ala Thr Thr Glu Val Gly Pro
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 Gln Ile Gly Val Lys Glu Ser Ser Met Glu Pro Lys Ala Ala Glu Glu
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 Glu Ala Gly Ser Glu Gln Lys Arg Asp Arg Lys Asp Ala Gly Thr Asp
 1635 1640 1645
 Lys Asn Pro Pro Glu Thr Ala Pro Val Glu Val Val Glu Lys Lys Pro
 1650 1655 1660
 Ala Pro Glu Lys Asn Ser Lys Ser Lys Arg Gly Arg Ser Arg Asn Ser
 1665 1670 1675 1680
 Arg Leu Ala Val Asp Lys Ser Ala Ser Leu Lys Asn Val Asp Ala Ala
 1685 1690 1695
 Val Ser Pro Arg Gly Ala Ala Ala Gln Ala Gly Glu Arg Glu Ser Gly
 1700 1705 1710
 Val Val Ala Val Ser Pro Glu Lys Ser Glu Ser Pro Gln Lys Glu Asp
 1715 1720 1725
 Gly Leu Ser Ser Gln Leu Lys Ser Asp Pro Val Asp Pro Asp Lys Glu
 1730 1735 1740
 Pro Glu Lys Glu Asp Val Ser Ala Ser Gly Pro Ser Pro Glu Ala Thr
 1745 1750 1755 1760
 Gln Leu Ala Lys Gln Met Glu Leu Glu Gln Ala Val Glu His Ile Ala
 1765 1770 1775
 Lys Leu Ala Glu Ala Ser Ala Ser Ala Tyr Lys Ala Asp Ala Pro
 1780 1785 1790
 Glu Gly Leu Ala Pro Glu Asp Arg Asp Lys Pro Ala His Gln Ala Ser

1795	1800	1805
Glu Thr Glu Leu Ala Ala Ala Ile Gly Ser Ile Ile Asn Asp Ile Ser		
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Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Pro Tyr Pro Gly Glu Ser		
1825	1830	1835
Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser		1840
1845	1850	1855
Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr		
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Glu Ala Ala Thr Glu Ser Ser Arg Pro Pro Val Asn Ala Pro Asp Pro		
1875	1880	1885
Ser Ala Gly Pro Thr Asp Thr Lys Glu Ala Arg Gly Asn Ser Ser Glu		
1890	1895	1900
Thr Ser His Ser Val Pro Glu Ala Lys Gly Ser Lys Glu Val Glu Val		
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Thr Leu Val Arg Lys Asp Lys Gly Arg Gln Lys Thr Thr Arg Ser Arg		1920
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Arg Lys Arg Asn Thr Asn Lys Lys Val Val Ala Pro Val Glu Ser His		
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Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu		
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Gly Thr Thr Val Gln His Pro Glu Ala Pro Gln Glu Glu Lys Gln Ser		
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Glu Lys Pro His Ser Thr Pro Pro Gln Ser Cys Thr Ser Asp Leu Ser		
1985	1990	1995
Lys Ile Pro Ser Thr Glu Asn Ser Ser Gln Glu Ile Ser Val Glu Glu		2000
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Arg Thr Pro Thr Lys Ala Ser Val Pro Pro Asp Leu Pro Pro Pro Pro		
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Gln Pro Ala Pro Val Asp Glu Glu Pro Gln Ala Arg Phe Arg Val His		
2035	2040	2045
Ser Ile Ile Glu Ser Asp Pro Val Thr Pro Pro Ser Asp Pro Ser Ile		
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Pro Ile Pro Thr Leu Pro Ser Val Thr Ala Ala Lys Leu Ser Pro Pro		
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Val Ala Ser Gly Gly Ile Pro His Gln Ser Pro Pro Thr Lys Val Thr		2080
2085	2090	2095
Glu Trp Ile Thr Arg Gln Glu Glu Pro Arg Ala Gln Ser Thr Pro Ser		
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Pro Ala Leu Pro Pro Asp Thr Lys Ala Ser Asp Val Asp Thr Ser Ser		
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Ser Thr Leu Arg Lys Ile Leu Met Asp Pro Lys Tyr Val Ser Ala Thr		
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Ser Val Thr Ser Thr Ser Val Thr Thr Ala Ile Ala Glu Pro Val Ser		
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Ala Ala Pro Cys Leu His Glu Ala Pro Pro Pro Pro Val Asp Ser Lys		2160
2165	2170	2175
Lys Pro Leu Glu Glu Lys Thr Ala Pro Pro Val Thr Asn Asn Ser Glu		
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Ile Gln Ala Ser Glu Val Leu Val Ala Ala Asp Lys Glu Lys Val Ala		
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 Pro Gln Thr Leu Thr Gly Leu Val Ser Ala Leu Thr Gly Leu Val Asn
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 Val Thr Thr Leu Lys Ser Leu Val Ser Thr Pro Ala Gly Pro Val Asn
 2275 2280 2285
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 Gly Ser Met Pro Val Ile Asp Asp Arg Pro Ala Asp Ala Gly Ser Gly
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 Ser Lys Ser Gln Val Lys Pro Asp Ser Val Thr Ala Ser Gln Pro Pro
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 Ser Lys Gly Pro Gln Ala Pro Ala Gly Tyr Ala Asn Val Ala Thr His
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 2545 2550 2555 2560
 Val Thr Leu Lys Ile Glu Thr Lys Val Leu Gln Pro Ala Asn Leu Gly
 2565 2570 2575
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 Thr Glu Val Asn His Val Pro Ser Gly Pro Ser Ile Pro Ala Asp Arg
 2595 2600 2605
 Thr Val Ser His Leu Ala Ala Lys Leu Asp Ala His Ser Pro Arg
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 Pro Ser Gly Pro Gly Pro Ser Ser Phe Pro Arg Ala Ser His Pro Ser
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 Ala Gly Ile Pro Val Pro Gln Phe Ile Ser Ser Ile His Pro Glu Gln

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 His Leu Ser Gln Gly Glu Val Arg Met Asn Thr Pro Thr Leu Pro Ser
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 Ile Thr Tyr Ser Ile Arg Pro Glu Ala Leu His Ser Pro Arg Ala Pro
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 Leu Gln Pro Gln Gln Ile Glu Val Arg Ala Pro Gln Arg Ala Ser Thr
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 Pro Val Ser Leu Pro Thr Gln Thr Ala Pro Lys Gln Pro Leu Phe Val
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 Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile

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	3125	3130
Leu Ser Glu Gly Gly Pro Pro Leu Arg Ile Ala Gln Arg Met Arg Leu		3135
	3140	3145
Glu Ala Thr Gln Leu Glu Gly Val Ala Arg Arg Met Thr Leu Ala Ser		3150
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Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly		3165
	3170	3175
Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala		3180
3185	3190	3195
Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val		3200
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Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro		3215
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Pro Cys Glu Gly Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu		3230
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<211> 1375

<212> DNA

<213> Homo sapiens

<400> 4511

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<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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Glu	Glu	Met	Thr	Pro	Thr	Ser	Val	Ile	Pro	Lys	Leu	Pro	Gln	Cys	Leu
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Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
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Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

3708

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<212> PRT

<213> Homo sapiens

<400> 4516

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 Asp Ile Ala Arg Ala Arg Arg Val Leu Glu Ala Val Pro Pro Gly Pro
 245 250 255
 His Trp Leu Leu Gly Thr Pro Leu Pro Pro Lys Ala Leu Pro Thr Ala
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 Gly Leu Pro Pro Gly Leu Leu Ala Leu Gly Glu Val Ala Arg Pro Pro
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<212> DNA
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<211> 650

<212> PRT

<213> Homo sapiens

<400> 4518

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<210> 4519

<211> 2326

<212> DNA

<213> Homo sapiens

<400> 4519

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<212> PRT

<213> Homo sapiens

<400> 4520

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Trp	Asn	Gln	Cys	Gln	Pro	Val	Ile	Ser	Lys	Ser	Leu	Glu	Lys	Pro	Leu
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Glu	Cys	Ile	Lys	Gly	Glu	Glu	Gly	Ile	Gln	Val	Arg	Glu	Ile	Ala	Cys
			85					90						95	
Ile	Gln	Lys	Asp	Lys	Asp	Ile	Pro	Ala	Glu	Asp	Ile	Ile	Cys	Glu	Tyr
		100					105						110		
Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
		115					120					125			
Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
	130					135				140					
Thr	Cys	Gly	Ser	Gly	Leu	Gln	His	Arg	Thr	Arg	His	Val	Val	Ala	Pro
145					150					155				160	
Pro	Gln	Phe	Gly	Gly	Ser	Gly	Cys	Pro	Asn	Leu	Thr	Glu	Phe	Gln	Val
			165					170						175	
Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
		180						185					190		
Val	Gly	Pro	Trp	Ser	Thr	Cys	Ser	Met	Pro	His	Ser	Arg	Gln	Val	Arg
		195					200					205			
Gln	Ala	Arg	Arg	Arg	Gly	Lys	Asn	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser
	210					215					220				
Lys	Gly	Val	Lys	Asp	Pro	Glu	Ala	Arg	Glu	Leu	Ile	Lys	Lys	Lys	Arg
225					230					235				240	
Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
			245					250						255	
Ile	Gly	Tyr	Gln	Thr	Arg	Glu	Val	Met	Cys	Ile	Asn	Lys	Thr	Gly	Lys
		260						265					270		
Ala	Ala	Asp	Leu	Ser	Phe	Cys	Gln	Gln	Glu	Lys	Leu	Pro	Met	Thr	Phe
		275					280					285			
Gln	Ser	Cys	Val	Ile	Thr	Lys	Glu	Cys	Gln	Val	Ser	Glu	Trp	Ser	Glu

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      290      295      300
Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly
305      310      315
Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu
      325      330      335
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly
      340      345      350
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp
      355      360      365
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg
      370      375      380
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val
385      390      395
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His
      405      410      415
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly
      420      425      430
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu
      435      440      445
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn
      450      455      460
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg
465      470      475
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro
      485      490      495
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp
      500      505      510
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys
      515      520      525
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly
      530      535      540
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro
545      550      555
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp
      565      570      575
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu
      580      585      590
Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu
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Gly Glu Ser Pro Ala Ser Asp Ala Ile
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<210> 4521

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

ttataccaat ataaacaatt actcaggaaa aaaagaaaat aaaaacttgc aagggctaaa

180

ataacttgct taccacaaa gatgcttgct ctaagaactg tgaagggatt caagaggaaa
 240
 agtacacca gagagggtc atacatgtcc tctccccctc ctctccacc accaggacac
 300
 acagaaactg cctcctcttt tcagccctct cccttctcag ctgactttga gctacaaata
 360
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 420
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 480
 aacaacaaac actcatatcc cacagttaca gaggctgaga agcctggggt caaggtacca
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 720
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 780
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 840
 aaccttgcac actaaaaaaa ggaacacaaa aataaaccaa aagaaaccga aaaccatgaa
 900
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 960
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<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

Met	Leu	Ala	Leu	Arg	Thr	Val	Lys	Gly	Phe	Lys	Arg	Lys	Ser	Thr	Pro
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			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
		35					40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
		50				55				60					
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65					70					75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
			85					90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
		115					120					125			
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

130	135	140
Gly Ala Leu Ser Leu His Leu Pro Glu Gly Arg Asn Ala Val Ser Leu		
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Gln His Arg Arg Asn Thr Ser Glu Lys Lys Ser Ser Arg Lys Val Glu		
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Asn Lys Glu Met Glu Tyr Ile Tyr Glu Asn Tyr Tyr Ile		
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<210> 4523
 <211> 1022
 <212> DNA
 <213> Homo sapiens

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 180
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 420
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 480
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 720
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 aa
 1022

<210> 4524
 <211> 262
 <212> PRT

<213> Homo sapiens

<400> 4524

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 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu
 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
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 Phe Phe Ser Trp Ile Gln
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<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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 120
 gagacagggga gccaaactag ctacagagcag cctggggcagc taatctcctt cagtgaggcc
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 240
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480
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1440
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1731

<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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 20 25 30
 Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
 35 40 45
 Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
 50 55 60
 Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
 65 70 75 80
 Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
 85 90 95
 Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
 100 105 110
 Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
 115 120 125
 Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
 130 135 140
 His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
 145 150 155 160
 Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
 165 170 175
 Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
 180 185 190
 Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
 195 200 205
 Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
 210 215 220
 Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
 225 230 235 240
 Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
 245 250 255
 Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
 260 265 270
 Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
 275 280 285
 Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
 290 295 300
 Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
 305 310 315 320
 Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
 325 330 335
 Tyr Thr Tyr Asp Lys His Ile Phe
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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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 120
 ctgcccaccc agccttggtc ctgggtgtcc atgtcccac gggggcagga gagaggcaca
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 240
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 300
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 420
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 480
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 660
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 720
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 780
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 885

<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

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			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
			35				40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
			50				55				60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
65					70				75					80	
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
				85				90					95		
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100				105					110			
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
			115				120					125			
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
			130				135					140			
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

145 150 155 160
 Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
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 Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
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 Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
 195 200 205

<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

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 aagatggagg agaaaccctc agggcccatc ccggacatgc tggccactgc agagcccagc
 180
 tccagtgaaga ccgacaagga ggtgtgtgcc ccggctgtgc cagctgcagc cccctcctcc
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 gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
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 420
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 agtctc
 546

<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 4530
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 Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
 35 40 45
 Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
 50 55 60
 Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
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 Pro Ala Leu Ala

<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
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180
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240
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1260
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1320
atgagagcag atggaatgag ttggtgacct ctcttaatct gtagcctcag ggaaacacgg
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1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 1 5 10 15
 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
 acgcgtgccc agcacatgtg tgcacacgca gatgcaggag agaacacaca ccaccgtctc
 60

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 120
 gcgcggcggc cccgcgcagc catggactgg ctcatgggga agtccaaagc caagcccaat
 180
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcaccg acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacgtac
 420
 tactgggtatg acgagcgggg gaagaaggtc aagtgcacgg cccacagta cgttgacttc
 480
 gtcatgagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccctg gtgaggaaga tctgcagaca cctgttccac
 600
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 660
 cacttgaaca cgctctacgt ccacttcac cttttgtctc gggagttaa cctgctggac
 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggcggcggg
 780
 gtccacagtg ggggcagtgg ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccgggcccga caggggcaca cgtgtgcaa gagacggtgg
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 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
1				5					10					15	
His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25					30		
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
			35				40					45			
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50					55					60				
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70					75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85					90					95		
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100					105						110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

```

      115              120              125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
      130              135              140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145              150              155              160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165              170              175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180              185              190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195              200              205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210              215              220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225              230              235              240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245              250              255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260              265              270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
      275              280

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<210> 4535
 <211> 473
 <212> DNA
 <213> Homo sapiens

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<400> 4535
cgactttttt tttttttttt ttttgagatg gagtctcggt ctgtcaccca ggctggagtg
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cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctngc
120
ctcagcctcc cgagtagctg ggattacagg cgtccgccac cacgcccggc taatttttgt
180
atttttagta gaaacggggt ttcacatct cggccagggt ggtcttgaac tcctgacctc
240
atgatccatc cgccttgagg tcccaaagt ctgggattac aggcattgagc taccgcgccc
300
ggccttgagg gcagattaac gggaatacct cccttgaggc tcctaggtga cactgtgata
360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggaccca cattgcctgg ttttgaatcc cagcacctcc acatgttacg cgt
473

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<210> 4536
 <211> 75
 <212> PRT
 <213> Homo sapiens

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<400> 4536
Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
1      5      10      15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

```


	20		25		30	
Pro	Arg	Phe	Lys	Gln	Phe	Ser
	35		40		45	
Tyr	Arg	Arg	Pro	Pro	Pro	Arg
	50		55		60	
Asn	Gly	Val	Ser	Pro	Ser	Arg
	65		70		75	

<210> 4537

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 4537

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120
ataaaacggt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaaggttcat
180
attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
240
ggccaactca ccctcatcct tgtcgacat catatcttat ccaaaagtga cacagcccta
300
gaggagngca gtagcagagg tgctagacca tcgacccatc gagccgaaac actgcctcc
360
ctgnnccatg tttcagttga gctggtgggg tcctgtgcta ccctggtgac cgagagaatc
420
ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaccatc
480
atcctggact gtgtcaacat ggacctaaa attggaaagg caacccaaa ggacagcaaa
540
tatgtggaga aactagaggc ccttttccca gacctacca agagaaatga tatatttgat
600
tcctaca aaa aggcaaagtt tgatgtatca ggactgacca ctgagcagat gctgagaaaa
660
gaccagaaga ctatctatag acaaggcgtc aagggtggcca ttagtgcaat atatatggat
720
ttggaggcct ttctgcagag gtctaacctc cttgcagatc tccatgcttt ctgccaggct
780
cacagctatg atgtcctggt tgccatgact atctttttca aactcacia tgagccagtg
840
cggcagttgg ctattttctg tccccatgtg gcactccaaa caacgatctg tgaagtccctg
900
gaacgctccc actctccacc cctgaagctg acccctgcct caagtaccca cctaacctc
960
catgcctatc ttcaaggcaa caccaggtc tctcgaaaga aacttctgcc cctgctccag
1020
gaagccctgt cagcatatct tgactccatg aagatccctt caggacagcc tgagacagca
1080
gatgtgtcca gggagcaagt ggacaaggaa ttggacaggg caagtaactc cctgatttct
1140
ggactgagtc aagatgagga ggaccctccg ctgccccga cgcccatgaa cagcttggtg
1200

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gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt ctctcgagaag
1260
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg
1320
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1380
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1620
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1740
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1800
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1860
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1920
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1980
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2040
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2100
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2160
ccttgctcac attaaaagga agcatggagt tctaattgctc ccataaacta tgtatttttg
2220
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2460
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2520
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2580
caacagtttc actgaacagt ggggtatgtg atggtttttg catgacatct tcagtatgag
2640
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2700
agtgggtgta tcatgaacca aaggaattta tgttttgtaa cttgggtact ttattttgca
2760
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2811

<210> 4538
 <211> 437
 <212> PRT
 <213> Homo sapiens

<400> 4538

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Xaa Ala Trp His Glu Gly Asn Glu Ala Cys Asp Leu Asp Ser Thr Val
 1           5           10           15
Ser Ala Leu Ala Leu Ala Phe Tyr Leu Ala Lys Thr Thr Glu Ala Glu
      20           25           30
Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
      35           40           45
Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
      50           55           60
Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
      65           70           75           80
Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
      85           90           95
Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
      100          105          110
His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
      115          120          125
Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
      130          135          140
Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
      145          150          155          160
Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
      165          170          175
Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
      180          185          190
Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
      195          200          205
Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
      210          215          220
Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
      225          230          235          240
Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
      245          250          255
Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
      260          265          270
Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
      275          280          285
His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
      290          295          300
Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
      305          310          315          320
His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
      325          330          335
Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
      340          345          350
Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
      355          360          365
Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

```

```

      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
      405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
      420              425              430
Ser Leu Ser Lys Lys
      435

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<210> 4539
 <211> 331
 <212> DNA
 <213> Homo sapiens

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<400> 4539
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tgggctggac tccgagaaag accagaagcc tgggggaaaa ccaaagggtg atcaatgaac
120
tcacctggaa actccagcaa gagcagaggc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gcctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540
 <211> 99
 <212> PRT
 <213> Homo sapiens

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<400> 4540
Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
1              5              10              15
Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20              25              30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35              40              45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50              55              60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
65              70              75              80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85              90              95
Pro Pro Ala

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<210> 4541
 <211> 452
 <212> DNA
 <213> Homo sapiens

<400> 4541

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 cacaggcaga tccagggatg taactgcttc agcaagaact gttgcgaatc ccttcgctgt
 120
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag
 180
 ggagacataa ccatttgtca tcaaactctg agctgctttt ggaacagatt tttcctgtaa
 240
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc
 300
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagaggtc
 360
 ccattgtatcc gcagagggat ccatcctcct cagagccgac aggagactag gatctcggac
 420
 ctggagagcc cgatgattcg cactgggtact gc
 452

<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

Met	Asp	Pro	Ser	Ala	Asp	Thr	Trp	Asp	Leu	Phe	Ser	Pro	Leu	Ile	Ser
1				5				10					15		
Leu	Trp	Ile	Asn	Arg	Phe	Tyr	Ile	Tyr	Leu	Gly	Phe	Ala	Val	Ser	Ile
			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
			35					40					45		
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
			50					55				60			
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
					70					75					80
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
				85					90					95	
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
				100					105					110	
Leu	Lys	Glu	Tyr	Asp	Pro	Asp	Asp	His	Leu	Ile	Glu	Glu	Val	Thr	Ser
				115				120						125	

<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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 120
 gagggcccg gcaccaatgc tttgcacttt gctcgcgccg acaccctgcg ggccagagct
 180

cctctgccgc ccaccgggct aacccttccg ggccctcacca ctcccagagt gctctgctta
 240
 tccggccact gactccggct cctcggaagc agggccaccc tctgaaatg gcttggaacg
 300
 gggctttcca ctggtgccct cccagacga ttgcttgtaa tgggccagtg cctcgccagg
 360
 gacacagcgg cagccccctg tagcttggtg ctgttcagaa acaagtccag cccaggtagg
 420
 gcagagggct ctgactgggg acccaagaag ggctggctgt gccgccaccg ctgccccgtc
 480
 accatcactg tgctgaagag ctcgaggctg ggcccacccg cgccggcccc acgttcctcc
 540
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 600
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 660
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 720
 cagccgtcta cctcaggaag ctcgctaggg aggagcgcat tctatgtgac taatgctggac
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 815

<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
			20					25					30		
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35					40					45			
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50					55					60				
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65				70						75				80	
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85						90					95	
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
			100					105					110		
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
		115					120					125			
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
	130					135						140			
Ala	Leu	Val	Ser	Thr	Gly										
145					150										

<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 4545
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120
gacagaaatg cagaggagaa aaagcgttta tctcttcagc gagaaaagat tatcgcaagg
180
gtgagtattg ataacaggac ccgggcatta gttcaggcat taagaagaac aactgaccca
240
aagctctgca ttactagggt tgaagaactg acttttcatc ttctagaatt tcctgaagga
300
aaaggagtgg ctgtcaagga aagaattatt ccatatttat tacgactgag acaaattaag
360
gatgaaactc ttcaggctgc agttagagaa attttggccc taattggcta tgtggatcca
420
gtgaaagga gaggaatccg aattctctca attgatggtg gaggaacaag gggcgtgggt
480
gctctccaga ccctacgaaa attagttgaa cttactcaga agccagttca tcagctcttt
540
gattacattt gtggtgtaag cacaggtgcc atattagctt tcatgttggg gttgtttcat
600
atgcccttgg atgaatgtga ggaactttat cgaaaattag gatcagatgt attttcacaa
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aatgtcattg ttggaacagt aaaaatgagt tggagccatg cattttatga cagtcaaaaca
720
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780
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<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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<212> DNA

<213> Homo sapiens

<400> 4547

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<212> PRT

<213> Homo sapiens

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<210> 4549

<211> 2927

<212> DNA

<213> Homo sapiens

<400> 4549

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<400> 4550

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Asp	Ile	Gly	Asn	Leu	Leu	Leu	Arg	Gly	Cys	Arg	Ile	Arg	Asn	Thr	Asp
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Thr	Cys	Tyr	Gly	Leu	Val	Ile	Tyr	Ala	Asp	Gly	Tyr	Met	Phe	Val	Gly
		115					120					125			
Phe	Asp	Thr	Lys	Ile	Met	Lys	Asn	Cys	Gly	Lys	Ile	His	Leu	Lys	Arg
		130				135					140				
Thr	Lys	Leu	Asp	Leu	Leu	Met	Asn	Lys	Leu	Val	Val	Val	Ile	Phe	Ile
145					150					155				160	
Ser	Val	Val	Leu	Val	Cys	Leu	Val	Leu	Ala	Phe	Gly	Phe	Gly	Phe	Ser
			165						170					175	
Val	Lys	Glu	Phe	Lys	Asp	His	His	Tyr	Tyr	Leu	Ser	Gly	Val	His	Gly
		180						185					190		
Ser	Ser	Val	Ala	Ala	Glu	Ser	Phe	Phe	Val	Phe	Trp	Ser	Phe	Leu	Ile
		195					200					205			
Leu	Leu	Ser	Val	Thr	Ile	Pro	Met	Ser	Met	Phe	Ile	Leu	Ser	Glu	Phe
		210				215					220				
Ile	Tyr	Leu	Gly	Asn	Ser	Val	Phe	Ile	Asp	Trp	Asp	Val	Gln	Met	Tyr
225				230					235					240	
Tyr	Lys	Pro	Gln	Asp	Val	Pro	Ala	Lys	Ala	Arg	Ser	Thr	Ser	Leu	Asn
			245						250					255	
Asp	His	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Ser	Asp	Lys	Thr	Gly	Thr
		260						265					270		
Leu	Thr	Gln	Asn	Ile	Leu	Thr	Phe	Asn	Lys	Cys	Cys	Ile	Ser	Gly	Arg
		275					280					285			
Val	Tyr	Gly	Glu	Pro	Leu	Pro	Leu	Glu	Gln	Val	Arg	Arg	Arg	Glu	Ala
		290				295					300				
Ala	Leu	Pro	Gln	Cys	Gly	Pro	Ala	Ala	Pro	Arg	Ala	Asp	Gln	Arg	Gly
305				310						315				320	
Arg	Gly	Arg	Ala	Gly	Val	Leu	Ala	Pro	Ala	Gly	His	Leu	Pro	His	Gly
			325						330					335	
Asp	Asp	Gln	Leu	Leu	Tyr	Gln	Ala	Ala	Ser	Pro	Asp	Glu	Gly	Ala	Leu

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          340          345          350
Val Thr Ala Ala Arg Asn Phe Gly Tyr Val Phe Leu Ser Arg Thr Gln
          355          360          365
Asp Thr Val Thr Ile Met Glu Leu Gly Glu Glu Arg Val Tyr Gln Val
          370          375          380
Leu Ala Ile Met Asp Phe Asn Ser Thr Arg Lys Arg Met Ser Val Leu
385          390          395          400
Val Arg Lys Pro Glu Gly Ala Ile Cys Leu Tyr Thr Lys Gly Ala Asp
          405          410          415
Thr Val Ile Phe Glu Arg Leu His Arg Arg Gly Ala Met Glu Phe Ala
          420          425          430
Thr Glu Glu Ala Leu Ala Ala Phe Ala Gln Glu Thr Leu Arg Thr Leu
          435          440          445
Cys Leu Ala Tyr Arg Glu Val Ala Glu Asp Ile Tyr Glu Asp Trp Gln
          450          455          460
Gln Arg His Gln Glu Ala Ser Leu Leu Leu Gln Asn Arg Ala Gln Ala
465          470          475          480
Leu Gln Gln Val Tyr Asn Glu Met Glu Gln Asp Leu Arg Leu Leu Gly
          485          490          495
Ala Thr Ala Ile Glu Asp Arg Leu Gln Asp Gly Val Pro Glu Thr Ile
          500          505          510
Lys Cys Leu Lys Lys Ser Asn Ile Lys Ile Trp Val Leu Thr Gly Asp
          515          520          525
Lys Gln Glu Thr Ala Val Asn Ile Gly Phe Ala Cys Glu Leu Leu Ser
          530          535          540
Glu Asn Met Leu Ile Leu Glu Glu Lys Glu Ile Ser Arg Ile Leu Glu
545          550          555          560
Thr Tyr Trp Glu Asn Ser Asn Asn Leu Leu Thr Arg Glu Ser Leu Ser
          565          570          575
Gln Val Lys Leu Ala Leu Val Ile Asn Gly Asp Phe Leu Asp Lys Leu
          580          585          590
Leu Val Ser Leu Arg Lys Glu Pro Arg Ala Leu Ala Gln Asn Val Asn
          595          600          605
Met Asp Glu Ala Trp Gln Glu Leu Gly Gln Ser Arg Arg Asp Phe Leu
          610          615          620
Tyr Ala Arg Arg Leu Ser Leu Leu Cys Arg Arg Phe Gly Leu Pro Leu
625          630          635          640
Ala Ala Pro Pro Ala Gln Asp Ser Arg Ala Arg Arg Ser Ser Glu Val
          645          650          655
Leu Gln Glu Arg Ala Phe Val Asp Leu Ala Ser Lys Cys Gln Ala Val
          660          665          670
Ile Cys Cys Arg Val Thr Pro Lys Gln Lys Ala Leu Ile Val Ala Leu
          675          680          685
Val Lys Lys Tyr His Gln Val Val Thr Leu Ala Ile Gly Asp Gly Ala
          690          695          700
Asn Asp Ile Asn Met Ile Lys Thr Ala Asp Val Gly Val Gly Leu Ala
705          710          715          720
Gly Gln Glu Gly Met Gln Ala Val Gln Asn Ser Asp Phe Val Leu Gly
          725          730          735
Gln Phe Cys Phe Leu Gln Arg Leu Leu Leu Val His Gly Arg Trp Ser
          740          745          750
Tyr Val Arg Ile Cys Lys Phe Leu Arg Tyr Phe Phe Tyr Lys Ser Met
          755          760          765
Ala Ser Met Met Val Gln Val Trp Phe Ala Cys Tyr Asn Gly Phe Thr

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      770              775              780
Gly Gln Asp Val Ser Ala Glu Gln Ser Leu Glu Lys Pro Glu Leu Tyr
785              790              795              800
Val Val Gly Gln Lys Asp Glu Leu Phe Asn Tyr Trp Val Phe Val Gln
      805              810              815
Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr
      820              825              830
Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His
      835              840              845
Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr
      850              855              860
Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala
865              870              875              880
Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr Thr
      885              890              895
Gln Ser Phe Trp Leu Phe Arg Met Pro Thr Ser Ala
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<210> 4551
 <211> 361
 <212> DNA
 <213> Homo sapiens

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<400> 4551
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120
caggcagggg tggctttgcc tgtctcagag caggcctcag cagcacactg tccagtacca
180
ggcatcagtg aggggtccaag aacttcgcagc cagcagggac gacagggcag ggcccccagg
240
agagacccca cacagcgcac atgggagagt ggatgccaaa ggtgggcagc ggggagggcg
300
cctgccaaac agtccctgtg tgggtgtgccg cacgctgctg aggtctctgt gcggtgttgg
360
c
361

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<210> 4552
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4552
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Ala Leu Gln Gly Gln Ala Gly Val Ala Leu Pro Val Ser Glu Gln Ala
20      25      30
Ser Ala Ala His Cys Pro Val Pro Gly Ile Ser Glu Gly Pro Arg Thr
35      40      45
Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
50      55      60
Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala

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65		70		75		80									
Pro	Ala	Lys	Gln	Ser	Leu	Cys	Gly	Val	Pro	His	Ala	Ala	Glu	Val	Ser
			85						90					95	
Val	Arg	Cys	Trp												
			100												

<210> 4553
 <211> 2970
 <212> DNA
 <213> Homo sapiens

<400> 4553
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 120
 tgcaattgtg gcactggcac ttatttcagt gaagaaaaac tttgtggttc tatggcattc
 180
 atcatttgac aaatgcaagc atcttcctta tcaatcagct cctattgaac ttactagcac
 240
 tgactgtgga atccttaagg gccattaca tttctgaaga agaaagctaa gatgaaggac
 300
 atgccactcc gaattcatgt gctacttggc ctagctatca ctacactagt acaagctgta
 360
 gataaaaaag tggattgtcc acggttatgt acgtgtgaaa tcaggccttg gtttacaccc
 420
 agatccattt atatggaagc atctacagtg gattgtaatg atttaggtct ttttaacttc
 480
 ccagccagat tgccagctaa cacacagatt cttctcctac agactaaca tattgcaaaa
 540
 attgaatact ccacagactt tccagtaaac cttactggcc tggatttatc tcaaaacaat
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 660
 gaggaaaaca aacttactga actgcctgaa aaatgtctgt ccgaactgag caacttaca
 720
 gaactctata ttaatcaca cttgctttct acaatttcac ctggagcctt tattggccta
 780
 cataatcttc ttgacttca tctcaattca aatagattgc agatgatcaa cagtaagtgg
 840
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 900
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 960
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 1020
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 1080
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 1140
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 1200
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 1260

tacattcacc ccaatgcatt tttcagactc cccaagctgg aatcactcat gctgaacagc
1320
aatgctctca gtgccttgta ccatggtacc attgagtctc tgccaaacct caaggaaatc
1380
agcatacaca gtaaccccat cagggtgtgac tgtgtcatcc gttggatgaa catgaacaaa
1440
accaacattc gattcatgga gccagattca ctgttttgcg tggacccacc tgaattccaa
1500
ggtcagaatg ttcggcaagt gcatttcagg gacatgatgg aaatttgtct ccctcttata
1560
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2160
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2340
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2520
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2580
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2640
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2760
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2820
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2880

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<210> 4554

<211> 705

<212> PRT

<213> Homo sapiens

<400> 4554

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Val	Gln	Ala	Val	Asp	Lys	Lys	Val	Asp	Cys	Pro	Arg	Leu	Cys	Thr	Cys
			20					25					30		
Glu	Ile	Arg	Pro	Trp	Phe	Thr	Pro	Arg	Ser	Ile	Tyr	Met	Glu	Ala	Ser
		35					40					45			
Thr	Val	Asp	Cys	Asn	Asp	Leu	Gly	Leu	Leu	Thr	Phe	Pro	Ala	Arg	Leu
		50				55					60				
Pro	Ala	Asn	Thr	Gln	Ile	Leu	Leu	Leu	Gln	Thr	Asn	Asn	Ile	Ala	Lys
65					70					75					80
Ile	Glu	Tyr	Ser	Thr	Asp	Phe	Pro	Val	Asn	Leu	Thr	Gly	Leu	Asp	Leu
				85					90					95	
Ser	Gln	Asn	Asn	Leu	Ser	Ser	Val	Thr	Asn	Ile	Asn	Val	Lys	Lys	Met
			100					105					110		
Pro	Gln	Leu	Leu	Ser	Val	Tyr	Leu	Glu	Glu	Asn	Lys	Leu	Thr	Glu	Leu
		115					120					125			
Pro	Glu	Lys	Cys	Leu	Ser	Glu	Leu	Ser	Asn	Leu	Gln	Glu	Leu	Tyr	Ile
		130				135					140				
Asn	His	Asn	Leu	Leu	Ser	Thr	Ile	Ser	Pro	Gly	Ala	Phe	Ile	Gly	Leu
145					150					155					160
His	Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Arg	Leu	Gln	Met	Ile
				165					170					175	
Asn	Ser	Lys	Trp	Phe	Asp	Ala	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	Ile
			180					185					190		
Gly	Glu	Asn	Pro	Ile	Ile	Arg	Ile	Lys	Asp	Met	Asn	Phe	Lys	Pro	Leu
		195					200					205			
Ile	Asn	Leu	Arg	Ser	Leu	Val	Ile	Ala	Gly	Ile	Asn	Leu	Thr	Glu	Ile
		210				215					220				
Pro	Asp	Asn	Ala	Leu	Val	Gly	Leu	Glu	Asn	Leu	Glu	Ser	Ile	Ser	Phe
225					230					235					240
Tyr	Asp	Asn	Arg	Leu	Ile	Lys	Val	Pro	His	Val	Ala	Leu	Gln	Lys	Val
			245						250					255	
Val	Asn	Leu	Lys	Phe	Leu	Asp	Leu	Asn	Lys	Asn	Pro	Ile	Asn	Arg	Ile
			260					265					270		
Arg	Arg	Gly	Asp	Phe	Ser	Asn	Met	Leu	His	Leu	Lys	Glu	Leu	Gly	Ile
		275					280					285			
Asn	Asn	Met	Pro	Glu	Leu	Ile	Ser	Ile	Asp	Ser	Leu	Ala	Val	Asp	Asn
		290				295					300				
Leu	Pro	Asp	Leu	Arg	Lys	Ile	Glu	Ala	Thr	Asn	Asn	Pro	Arg	Leu	Ser
305					310					315					320
Tyr	Ile	His	Pro	Asn	Ala	Phe	Phe	Arg	Leu	Pro	Lys	Leu	Glu	Ser	Leu
				325					330					335	
Met	Leu	Asn	Ser	Asn	Ala	Leu	Ser	Ala	Leu	Tyr	His	Gly	Thr	Ile	Glu

340 345 350
 Ser Leu Pro Asn Leu Lys Glu Ile Ser Ile His Ser Asn Pro Ile Arg
 355 360 365
 Cys Asp Cys Val Ile Arg Trp Met Asn Met Asn Lys Thr Asn Ile Arg
 370 375 380
 Phe Met Glu Pro Asp Ser Leu Phe Cys Val Asp Pro Pro Glu Phe Gln
 385 390 395 400
 Gly Gln Asn Val Arg Gln Val His Phe Arg Asp Met Met Glu Ile Cys
 405 410 415
 Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
 420 425 430
 Ala Gly Ser Tyr Val Ser Phe His Cys Arg Ala Thr Ala Glu Pro Gln
 435 440 445
 Pro Glu Ile Tyr Trp Ile Thr Pro Ser Gly Gln Lys Leu Leu Pro Asn
 450 455 460
 Thr Leu Thr Asp Lys Phe Tyr Val His Ser Glu Gly Thr Leu Asp Ile
 465 470 475 480
 Asn Gly Val Thr Pro Lys Glu Gly Gly Leu Tyr Thr Cys Ile Ala Thr
 485 490 495
 Asn Leu Val Gly Ala Asp Leu Lys Ser Val Met Ile Lys Val Asp Gly
 500 505 510
 Ser Phe Pro Gln Asp Asn Asn Gly Ser Leu Asn Ile Lys Ile Arg Asp
 515 520 525
 Ile Gln Ala Asn Ser Val Leu Val Ser Trp Lys Ala Ser Ser Lys Ile
 530 535 540
 Leu Lys Ser Ser Val Lys Trp Thr Ala Phe Val Lys Thr Glu Asn Ser
 545 550 555 560
 His Ala Ala Gln Ser Ala Arg Ile Pro Ser Asp Val Lys Val Tyr Asn
 565 570 575
 Leu Thr His Leu Asn Pro Ser Thr Glu Tyr Lys Ile Cys Ile Asp Ile
 580 585 590
 Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
 595 600 605
 Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
 610 615 620
 Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile
 625 630 635 640
 Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His
 645 650 655
 Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu
 660 665 670
 Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser
 675 680 685
 Thr Ser Leu Lys Val Lys Ala Thr Val Ile Gly Leu Pro Thr Asn Met
 690 695 700
 Ser
 705

<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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 120
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 180
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 300
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 420
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 480
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 720
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 780
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 960
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<210> 4556

<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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Leu	Asp	Thr	Pro	Gly	Val	Leu	Ala	Pro	Arg	Ile	Glu	Ser	Val	Glu	Thr
			20					25				30			
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
		35				40					45				
Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
	50					55					60				
Arg	Phe	Gly													

65

<210> 4557

<211> 446

<212> DNA

<213> Homo sapiens

<400> 4557

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180
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240
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300
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446

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<210> 4558

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4558

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20     25     30
Lys Ala Val Arg Cys Ala Gln Asp His Leu Gly His Ser His Pro Pro
35     40     45
Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
50     55     60
Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
65     70     75     80
Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
85     90     95
Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro
100    105    110
Cys Met His Trp Pro Pro Pro Ser Asp Ala Pro Cys Thr Ile Ser Leu
115    120    125
Ala Leu Asp Ala Leu Leu Gly Leu Pro Pro Pro Ser Asp His His Ile
130    135    140
Thr Ser Thr Arg
145

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<210> 4559

<211> 919

<212> DNA

<213> Homo sapiens

<400> 4559

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360
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<210> 4560

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4560

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Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
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Arg Gly Gly Ile Gln Pro Gln Met Pro Gly Gly Tyr Ala Leu Ser Gln
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Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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3759

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<212> DNA

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<212> PRT

<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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<210> 4568

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4568

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<211> 1797

<212> DNA

<213> Homo sapiens

<400> 4569

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<211> 141
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 50 55 60
 Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
 65 70 75 80
 Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
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 Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
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<210> 4571
 <211> 1084
 <212> DNA
 <213> Homo sapiens

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 <211> 126
 <212> PRT
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 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
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Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
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<212> DNA
<213> Homo sapiens

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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<212> DNA

<213> Homo sapiens

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3420
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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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      20           25           30
Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
      35           40           45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
 50           55           60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
65           70           75           80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
      85           90           95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
      100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
130          135          140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145          150          155          160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
      165          170          175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
      180          185          190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
      195          200          205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
210          215          220
Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225          230          235          240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
      245          250          255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260          265          270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
      275          280          285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
290          295          300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
305          310          315          320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
      325          330          335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
      340          345          350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
370          375          380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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Asp	Asp	Asp	Val	Ala	Asp	Gly	Leu	Ala	Phe	His	Ala	Lys	Arg	Ser	Tyr								
			420				425						430										
Gln	Pro	His	Gly	Arg	Trp	Ala	Glu	Arg	Ala	Gly	Gln	Glu	Pro	Leu	Lys								
			435				440						445										
Thr	Ile	Leu	Asp	Ala	Gln	Asp	Leu	Asp	Cys	Tyr	Phe	Thr	Pro	Met	Lys								
			450				455						460										
Pro	Glu	Ser	Leu	Glu	Asn	Ser	Ile	Leu	Asp	Ser	Leu	Glu	Pro	Gln	Ser								
465				470						475						480							
Leu	Ala	Ser	Leu	Leu	Ser	Glu	Gln	Lys	Glu	Ser	Ser	Glu	Ala	Ser	Glu								
			485						490						495								
Leu	Ile	Leu	Tyr	Ser	Leu	Glu	Ala	Glu	Val	Thr	Val	Thr	Gly	Thr	Asp								
			500				505						510										
Ser	Gln	Tyr	Cys	Arg	Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln								
			515				520						525										
Gly	Asp	Ser	Tyr	Leu	Arg	Val	Ser	Ser	Asp	Ser	Pro	Lys	Asp	Gln	Ser								
			530				535						540										
Pro	Pro	Glu	Gly	Pro	Thr	Glu	Asp	Glu	Leu	Ser	Leu	Pro	Glu	Gly	Pro								
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Ser	Val	Pro	Ser	Ser	Ser	Leu	Pro	Gln	Thr	Pro	Glu	Gln	Glu	Lys	Phe								
			565						570						575								
Leu	Arg	His	His	Phe	Glu	Thr	Leu	Thr	Glu	Ser	Pro	Cys	Arg	Ala	Leu								
			580				585						590										
Gly	Asp	Val	Glu	Ala	Ser	Glu	Ala	Glu	Asp	His	Phe	Phe	Asn	Pro	Arg								
			595				600						605										
Leu	Ser	Ile	Ser	Thr	Gln	Phe	Leu	Ser	Ser	Leu	Gln	Lys	Ala	Ser	Arg								
			610				615						620										
Phe	Thr	His	Thr	Phe	Pro	Pro	Arg	Ala	Thr	Gln	Cys	Leu	Val	Lys	Ser								
625				630						635						640							
Pro	Glu	Val	Lys	Leu	Met	Asp	Arg	Gly	Gly	Ser	Gln	Pro	Arg	Ala	Gly								
			645						650						655								
Thr	Gly	Tyr	Ala	Ser	Pro	Asp	Arg	Thr	His	Ser	Val	Pro	Ser	Ala	Ser								
			660				665						670										
Val	Thr	Ala	Pro	Cys	Leu	Thr	Ser	Leu	Ala	Ser	Cys	Val	Pro	Ala	Ser								
			675				680						685										
Ser	Val	Leu	Pro	Thr	Asp	Arg	Asn	Leu	Pro	Thr	Pro	Thr	Ser	Ala	Pro								
			690				695						700										
Thr	Pro	Gly	Leu	Ala	Gln	Gly	Val	His	Ala	Pro	Ser	Thr	Cys	Ser	Tyr								
705				710						715						720							
Met	Glu	Ala	Thr	Ala	Ser	Ser	Arg	Ala	Arg	Ile	Ser	Arg	Ser	Ile	Ser								
			725						730						735								
Leu	Gly	Asp	Ser	Glu	Gly	Pro	Ile	Val	Ala	Thr	Leu	Ala	Gln	Pro	Leu								
			740				745						750										
Arg	Arg	Pro	Ser	Ser	Val	Gly	Glu	Leu	Ala	Ser	Leu	Gly	Gln	Glu	Leu								
			755				760						765										
Gln	Ala	Ile	Thr	Thr	Ala	Thr	Thr	Pro	Ser	Leu	Asp	Ser	Glu	Gly	Gln								
			770				775						780										
Glu	Pro	Ala	Leu	Arg	Ser	Trp	Gly	Asn	His	G													

```

      835              840              845
Pro Ser Leu Pro Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser
  850              855              860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala
  865              870              875              880
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys
      885              890              895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro
  900              905              910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser
  915              920              925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp
  930              935              940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg
  945              950              955              960
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys
      965              970              975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His
      980              985              990
Gly Gly Thr Glu Gly Ala Ala Pro Pro Pro Gln Pro Cys Cys Phe
      995              1000              1005

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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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120
accaactgca tgaagcagca cttgctggag attgaccacc ggcagcagca gcagcacaca
180
aatgacaaga agcggagtgg cccccccagg caggatacgt atgtgtccac acctagttag
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<210> 4580

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4580

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Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe
      20              25              30
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
      35              40              45
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

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50		55		60
Arg Ser Gly Pro Pro Arg Gln Asp Thr Tyr Val Ser Thr Pro Ser Glu				
65		70		75
Ile His Ser Leu Ser Pro Gly Glu Gln Thr Glu Asp Asp Leu Glu Glu				80
	85		90	95
Glu Cys Glu Pro Glu Glu Met Leu Lys Thr Pro				
100		105		

<210> 4581

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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120
cgggagcgca ggtcagattc agaggaagag cgggtggcagc gctcagggat gcgaagccgg
180
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240
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300
tcctcagcat ccagctcggc gtctccaggg cgatcccaga gccccgggc ggccgcggt
360
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420
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540
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780
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960
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1080
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1140
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1200

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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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		20					25					30			
Glu	Leu	Met	Lys	Ala	Phe	Glu	Thr	Pro	Glu	Glu	Lys	Arg	Ala	Arg	Arg
	35					40					45				
Leu	Ala	Lys	Lys	Glu	Ala	Lys	Glu	Arg	Lys	Lys	Arg	Glu	Lys	Met	Gly
	50				55						60				
Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
65				70				75						80	
Asp	Asn	Asn	Leu	Leu	Gly	Thr	Phe	Ile	Trp	Asn	Lys	Ala	Leu	Glu	Lys
		85						90					95		
Lys	Gly	Ile	Ser	His	Leu	Glu	Glu	Lys	Glu	Leu	Lys	Glu	Arg	Asn	Lys
	100							105				110			
Arg	Ile	Gln	Glu	Asp	Asn	Arg	Leu	Glu	Leu	Gln	Lys	Val	Lys	Gln	Leu
	115					120						125			
Arg	Leu	Glu	Arg	Glu	Arg	Glu	Lys	Ala	Met	Arg	Glu	Gln	Glu	Leu	Glu
	130					135					140				
Met	Leu	Gln	Arg	Val	Lys	Gly	Thr	Glu	His	Phe	Lys	Thr	Trp	Glu	Glu
145				150						155				160	
Gln	Glu	Asp	Asn	Phe	His	Leu	Gln	Gln	Ala	Lys	Leu	Arg	Ser	Lys	Ile
		165						170						175	
Arg	Ile	Arg	Asp	Gly	Arg	Ala	Lys	Pro	Ile	Asp	Leu	Leu	Ala	Lys	Tyr
	180							185					190		
Ile	Ser	Ala	Glu	Asp	Asp	Asp	Leu	Ala	Gly	Glu	Met	His	Glu	Pro	Tyr
	195					200						205			
Thr	Phe	Leu	Asn	Gly	Leu	Thr	Val	Ala	Asp	Met	Glu	Asp	Leu	Leu	Glu
	210					215					220				
Asp	Ile	Gln	Val	Tyr	Met	Glu	Leu	Glu	Gln	Gly	Lys	Asn	Ala	Asp	Phe
225				230						235				240	
Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Glu	Ile	Ser	Lys	Leu	Arg
		245						250						255	
Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
		260						265					270		
Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
	275						280					285			
Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
	290					295					300				
Ala	Gly	Gly	Pro	Asn	Leu	Asp	Met	Gly	Tyr	Trp	Glu	Ser	Leu	Leu	Gln

305		310		315		320									
Gln	Leu	Arg	Ala	His	Met	Ala	Arg	Ala	Arg	Leu	Arg	Glu	Arg	His	Gln
				325					330					335	
Asp	Val	Leu	Arg	Gln	Lys	Leu	Tyr	Lys	Leu	Lys	Gln	Glu	Gln	Gly	Val
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Glu	Ser														

<210> 4583

<211> 3350

<212> DNA

<213> Homo sapiens

<400> 4583

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1200

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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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			20				25					30			
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35				40					45				
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
	50				55				60						
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
65				70				75					80		
Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Leu	Thr	His	Ile	Gln	Asn
			85					90				95			
Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
		100				105					110				
Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
	115				120						125				
Leu	Val	Glu	Lys	Tyr	Ser	Asn	Asp	Val	Thr	Ser	Leu	Pro	Phe	Leu	Leu
	130				135						140				
Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
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Ile	Gly	Ala	Asn	Arg	Arg	Thr	Glu	Ile	Ile	Glu	Asp	Leu	Ala	Phe	Tyr
		165				170						175			
Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
		180				185						190			
Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
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Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
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<210> 4585
<211> 1952
<212> DNA
<213> Homo sapiens
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420
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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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Lys Asp Val His Lys Gly Val Gly Gly Ile Ile Phe Ser Ser Ser Pro
 35           40           45
Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
 50           55           60
Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
 65           70           75           80
Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
      85           90           95
Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
      100           105           110
His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
      115           120           125
Leu Pro Val Glu Leu Gly Ser Val Thr Thr Leu Lys Ala Leu Asn Leu
      130           135           140
Arg His Cys Pro Leu Glu Phe Pro Pro Gln Leu Val Val Gln Lys Gly
      145           150           155           160
Leu Val Ala Ile Gln Arg Phe Leu Arg Met Trp Ala Val Glu His Ser
      165           170           175
Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
      180           185           190
Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
      195           200           205
Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
      210           215           220
Met Lys Glu Lys Ala Ser Phe Leu Pro Pro Val Glu Lys Pro Asp Leu
      225           230           235           240
Ser Glu Leu Arg Lys Ser Ala Asp Ser Ser Glu Asn Trp Pro Ser Glu
      245           250           255
Glu Glu Ile Arg Arg Phe Trp Lys Leu Arg Gln Glu Ile Val Glu His
      260           265           270
Val Lys Ala Asp Val Leu Gly Asp Gln Leu Leu Thr Arg Glu Leu Pro
      275           280           285
Pro Asn Leu Lys Ala Ala Leu Asn Ile Glu Lys Glu Leu Pro Lys Pro
      290           295           300
Arg His Val Phe Arg Arg Lys Thr Ala Ser Ser Arg Ser Ile Leu Pro
      305           310           315           320
Asp Leu Leu Ser Pro Tyr Gln Met Ala Ile Arg Ala Lys Arg Leu Glu
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Glu Ser Arg Ala Ala Ala Leu Arg Glu Leu Gln Glu Lys Gln Ala Leu
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Met Glu Gln Gln Arg Arg Glu Lys Arg Ala Leu Gln Glu Trp Arg Glu
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          435          440          445
Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
          450          455          460
Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
465          470          475          480
Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
          485          490          495
Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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Tyr Gln
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<210> 4587
<211> 1723
<212> DNA
<213> Homo sapiens

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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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			20					25					30		
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
			35				40					45			
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
			50				55					60			
Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
65				70					75				80		
Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
			85						90				95		
Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
			100					105				110			
Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
			115				120					125			
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Gly Ala Ser Gln Lys Leu Pro Arg Lys Met Val Ala Ile Asp Cys Glu				
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Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys				
	165		170	175
Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu				
	180		185	190
Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg				
	195		200	205
Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln				
	210		215	220
Ile Leu Lys Ile Leu Thr Gly Lys Ile Val Val Gly His Ala Ile His				
225		230		235
Asn Asp Phe Lys Ala Leu Gln Tyr Phe His Pro Lys Ser Leu Thr Arg				
	245		250	255
Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu				
	260		265	270
Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg				
	275		280	285
Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln				
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<210> 4589

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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<211> 121
 <212> PRT
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 35 40 45
 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
 50 55 60
 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
 65 70 75 80
 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
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 Val Ala Ser Gly Phe Leu Gln Ala Ala Ala Arg Leu Gly Pro Ser Leu
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<210> 4591
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 <213> Homo sapiens

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<210> 4592
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 <212> PRT
 <213> Homo sapiens

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Lys Ala Ser	Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg		
	35	40	45
Ala Pro Leu Trp	Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys		
	50	55	60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser			
65	70	75	80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln			
	85	90	95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly			
	100	105	110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys			
	115	120	125
Arg Leu Gly Ile His Thr Pro Ala His Val Ala Ser Pro Ser Ala Val			
	130	135	140
Trp Ser Gln Gly Trp Ala Gly Lys			
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<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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<210> 4594

<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala
	35					40					45			
Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser
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Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr
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Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr
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Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser
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Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser
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Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn
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Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly
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Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe
		165					170				175			
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Asp	Ser	Asp	Ser	Ser	Thr	Asn	Ser	Asp	Leu	Ser	Asp	Leu	Ser	Asp	Ser						
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Glu	Glu	Gln	Leu	Gln	Ala	Lys	Thr	Gly	Leu	Lys	Gly	Ile	Pro	Glu	His						
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Leu	Met	Gly	Lys	Leu	Gly	Pro	Asn	Gly	Glu	Arg	Ser	Ala	Glu	Leu	Leu						
225	230							235							240						
Leu	Gly	Lys	Ser	Lys	Gly	Lys	Gln	Ala	Pro	Lys	Gly	Arg	Pro	Arg	Thr						
245							250							255							
Ala	Pro	Leu	Lys	Val	Gly	Gln	Ser	Val	Leu	Lys	Asp	Val	Ser	Lys	Val						
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Lys	Lys	Leu	Lys	Gln	Ser	Gly	Glu	Pro	Phe	Leu	Gln	Asp	Gly	Ser	Cys						
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Ile	Asn	Val	Ala	Pro	His	Leu	His	Lys	Cys	Arg	Glu	Cys	Arg	Leu	Glu						
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Arg	Tyr	Arg	Lys	Phe	Lys	Glu	Gln	Glu	Gln	Asp	Asp	Ser	Thr	Val	Ala						
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Cys	Arg	Phe	Phe	His	Phe	Arg	Arg	Leu	Ile	Phe	Thr	Arg	Lys	Gly	Val						
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Leu	Val	Met	Ser	Glu	Lys	Glu	Ala	Met	Met	Met	Val	Glu	Pro	His	Gln						
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Lys	Val	Ala	Trp	Lys	Arg	Ala	Val	Arg	Gly	Val	Arg	Glu	Met	Cys	Asp						
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Val	Cys	Glu	Thr	Thr	Leu	Phe	Asn	Ile	His	Trp	Val	Cys	Arg	Lys	Cys						
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Gly	Phe	Gly	Val	Cys	Leu	Asp	Cys	Tyr	Arg	Leu	Arg	Lys	Ser	Arg	Pro						
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Arg	Ser	Glu	Thr	Glu	Glu	Met	Gly	Asp	Glu	Glu	Val	Phe	Ser	Trp	Leu						
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Lys	Cys	Ala	Lys	Gly	Gln	Ser	His	Glu	Pro	Glu	Asn	Leu	Met	Pro	Thr						
465	470							475							480						
Gln	Ile	Ile	Pro	Gly	Thr	Ala	Leu	Tyr	Asn	Ile	Gly	Asp	Met	Val	His						
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Gln	Leu	Pro	Ser	Ile	Asn	Pro	Ser	Ala	Ser	Ser	Gly	Asn	Glu	Thr	Thr						
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Phe	Ser	Gly	Gly	Gly	Gly	Pro	Ala	Pro	Val	Thr	Thr	Pro	Glu	Pro	Asp						
545	550							555							560						
His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu						
565							570							575							
Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Asn	Ser	Glu	Leu	Lys	Ala	Ile						
580							585							590							
Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp						
595							600							605							
Leu	Ala	Asp	Leu	Ala	Thr	Gln	Lys	Ala	Lys	Glu	Glu	Thr	Lys	Glu	Ala						

610	615	620
Gly Ser Leu Arg Ser Val Leu Asn Lys Glu Ser His Ser Pro Phe Gly		
625	630	635
Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys		640
	645	650
Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
	660	665
Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
	740	745
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
	755	760
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
	770	775
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu		780
785	790	795
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
	820	825
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
	835	840
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp		860
865	870	875
Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
	915	920
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
945	950	955
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
	965	970
Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
	995	1000
Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
	1010	1015
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1020
1025	1030	1035
Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

1045 1050 1055
 Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro
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 His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe
 1075 1080 1085
 Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe
 1090 1095 1100
 Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val
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 Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys
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<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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 180
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 300
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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596

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Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Ser Trp Ala Pro Leu Arg
      35           40           45
Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
      50           55           60
Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
65           70           75           80
Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
      85           90           95
Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
      100          105          110
Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
      115          120          125
Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
      130          135          140
Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
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Gln Ala Arg Pro Arg Arg Gly Ser Asn
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597

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360
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<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598
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 Pro Gly Pro Trp Gly Val Gly Arg Gly Thr Cys Leu Thr Ala Gln Leu
 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
 Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
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 Val Asp Gln Ser Leu Arg Glu
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

<400> 4599
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 120
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 240
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 360
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 720

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<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
 210 215 220
 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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 180
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 480
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 540
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 780
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 916

<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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		20						25					30	Asn
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val
		35					40					45		Ala
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu
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Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr
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Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg
			100					105					110	Met
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu
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			165					170					175	Ala
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn
			180					185					190	Met
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<210> 4603
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<212> DNA
<213> Homo sapiens
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960

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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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			20					25					30		
Ser	Ile	Leu	Asp	Ser	Leu	Glu	Pro	Gln	Ser	Leu	Ala	Ser	Leu	Leu	Ser
		35				40						45			
Glu	Ser	Glu	Ser	Pro	Gln	Glu	Ala	Gly	Arg	Gly	His	Pro	Ser	Phe	Leu
	50				55						60				
Pro	Gln	Gln	Lys	Glu	Ser	Ser	Glu	Ala	Ser	Glu	Leu	Ile	Leu	Tyr	Ser

65					70					75					80
Leu	Glu	Ala	Glu	Val	Thr	Val	Thr	Gly	Thr	Asp	Ser	Gln	Tyr	Cys	Arg
				85					90					95	
Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln	Gly	Asp	Ser	Tyr	Leu
			100					105						110	
Arg	Val	Ser	Ser	Asp	Ser	Pro	Lys	Asp	Gln	Ser	Pro	Pro	Glu	Asp	Ser
		115					120					125			
Gly	Glu	Ser	Glu	Ala	Asp	Leu	Glu	Cys	Ser	Phe	Ala	Ala	Ile	His	Ser
	130					135				140					
Pro	Ala	Pro	Pro	Pro	Asp	Pro	Ala	Pro	Arg	Phe	Ala	Thr	Ser	Leu	Pro
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His	Phe	Pro	Gly	Cys	Ala	Gly	Pro	Thr	Glu	Asp	Glu	Leu	Ser	Leu	Pro
				165					170					175	
Glu	Gly	Pro	Ser	Val	Pro	Ser	Ser	Ser	Leu	Pro	Gln	Thr	Pro	Glu	Gln
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Glu	Lys	Phe	Leu	Arg	His	His	Phe	Glu	Thr	Leu	Thr	Glu	Ser	Pro	Cys
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Val	Lys	Ser	Pro	Glu	Val	Lys	Leu	Met	Asp	Arg	Gly	Gly	Ser	Gln	Pro
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Arg	Ala	Gly	Thr	Gly	Tyr	Ala	Ser	Pro	Asp	Arg	Thr	His	Val	Leu	Ala
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Ala	Gly	Lys	Ala	Glu	Glu	Thr	Leu	Glu	Ala	Trp	Arg	Pro	Pro	Pro	Pro
	290					295				300					
Cys	Leu	Thr	Ser	Leu	Ala	Ser	Cys	Val	Pro	Ala	Ser	Ser	Val	Leu	Pro
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Thr	Asp	Arg	Asn	Leu	Pro	Thr	Pro	Thr	Ser	Ala	Pro	Thr	Pro	Gly	Leu
			325						330					335	
Ala	Gln	Gly	Val	His	Ala	Pro	Ser	Thr	Cys	Ser	Tyr	Met	Glu	Ala	Thr
		340						345					350		
Ala	Ser	Ser	Arg	Ala	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Leu	Gly	Asp	Ser
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Glu	Gly	Pro	Ile	Val	Ala	Thr	Leu	Ala	Gln	Pro	Leu	Arg	Arg	Pro	Ser
	370					375				380					
Ser	Val	Gly	Glu	Leu	Ala	Ser	Leu	Gly	Gln	Glu	Leu	Gln	Ala	Ile	Thr
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Thr	Ala	Thr	Thr	Pro	Ser	Leu	Asp	Ser	Glu	Gly	Gln	Glu	Pro	Ala	Leu
			405						410					415	
Arg	Ser	Trp	Gly	Asn	His	Glu	Ala	Arg	Ala	Asn	Leu	Arg	Leu	Thr	Leu
		420						425					430		
Ser	Ser	Ala	Cys	Asp	Gly	Leu	Leu	Leu	Pro	Pro	Val	Asp	Thr	Gln	Pro
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Gly	Val	Thr	Val	Pro	Ala	Val	Ser	Phe	Pro	Ala	Pro	Ser	Pro	Val	Glu
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Glu	Ser	Ala	Leu	Arg	Leu	His	Gly	Ser	Ala	Phe	Arg	Pro	Ser	Leu	Pro
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Ala	Pro	Glu	Ser	Pro	Gly	Leu	Pro	Ala	His	Pro	Ser	Asn	Pro	Gln	Leu
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<210> 4605
<211> 2998
<212> DNA
<213> Homo sapiens
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<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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			20					25					30		
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser	Asp
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Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly	Thr
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Leu	Tyr	Phe	Asn	Glu	Val	Gly	Met	Arg	Glu	Glu	Gly	Asp	Tyr	Thr	Cys
65				70					75					80	
Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys
			85					90					95		
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val
		100					105						110		
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly
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Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile
	130					135					140				
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu	Leu
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Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu	Val
			165					170					175		
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val	Asn
		180					185					190			
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr	Val
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Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp Ser Val Gln Leu
      260              265              270
Val Cys Met Ala Arg Asn Glu Gly Glu Ala Arg Leu Ile Leu Gln
      275              280              285
Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
      290              295              300
Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
305              310              315              320
Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
      325              330              335
Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
      340              345              350
Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
      355              360              365
Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu
      370              375              380
Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His
385              390              395              400
Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr
      405              410              415
Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
      420              425              430
Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp
      435              440              445
Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr
      450              455              460
Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
465              470              475              480
Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr Ser Glu Pro Thr
      485              490              495
Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
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Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
      515              520              525
Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
530              535              540
Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
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Lys Thr Thr Tyr Ile His Val Phe
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<210> 4607

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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<210> 4608

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4608

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			20					25					30		
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
		35					40				45				
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50					55				60					
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
65				70					75					80	
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
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<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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<210> 4610

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

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			20					25					30		
Ala	Ala	Arg	Leu	Gly	Ala	Gln	Gly	Arg	Arg	Val	Val	Leu	Val	Thr	Ser
			35				40					45			
Gly	Gly	Thr	Lys	Val	Pro	Leu	Glu	Ala	Arg	Pro	Val	Arg	Phe	Leu	Asp
	50					55					60				
Asn	Phe	Ser	Ser	Gly	Arg	Arg	Gly	Ala	Thr	Ser	Ala	Glu	Ala	Phe	Leu
65					70					75				80	
Ala	Ala	Gly	Tyr	Gly	Val	Leu	Phe	Leu	Tyr	Arg	Ala	Arg	Ser	Ala	Phe
			85					90					95		
Pro	Tyr	Ala	His	Arg	Phe	Pro	Pro	Gln	Thr	Trp	Leu	Ser	Ala	Leu	Arg
			100					105					110		
Pro	Ser	Gly	Pro	Ala	Leu	Ser	Gly	Leu	Leu	Ser	Leu	Glu	Ala	Glu	Glu
		115				120					125				
Asn	Ala	Leu	Pro	Gly	Phe	Ala	Glu	Ala	Leu	Arg	Ser	Tyr	Gln	Glu	Ala
		130				135					140				
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145				150					155					160	
Tyr	Leu	His	Leu	Leu	Gln	Ala	Ala	Ala	Gln	Ala	Leu	Asn	Pro	Leu	Gly
			165					170					175		
Pro	Ser	Ala	Met	Phe	Tyr	Leu	Ala	Ala	Ala	Val	Ser	Asp	Phe	Tyr	Val
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Pro	Val	Ser	Glu	Met	Pro	Glu	His	Lys	Ile	Gln	Ser	Ser	Gly	Gly	Pro

	195		200		205	
Leu	Gln	Gly	Lys	Val	Gln	Leu
	210		215		220	
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225			230		235	
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<210> 4611

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 4611

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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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		20						25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
		35					40					45			
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
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Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85					90					95		
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
		100						105				110			
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
		115					120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
		130				135					140				
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
145				150					155					160	
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<210> 4613
<211> 454
<212> DNA
<213> Homo sapiens

<400> 4613
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<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35					40					45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
	50					55					60				
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65					70					75				80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85						90				95		
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
			100					105					110		
Ser	Val	Ser	Leu	Leu											
			115												

<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 120
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 240

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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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		20						25					30		
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn	
		35				40					45				
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

65					70					75				80	
Asn	Phe	Glu	Gly	Lys	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu
				85					90					95	
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln
			100					105					110		
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val
		115				120						125			
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg
	130					135					140				
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala
145					150				155					160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp
				165				170						175	
Lys	Gly	Asn	Lys	Glu	Cys	Phe	Trp	Ala	Ser	Asn	Ser				
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<210> 4617

<211> 2266

<212> DNA

<213> Homo sapiens

<400> 4617

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960

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<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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<211> 539
<212> DNA
<213> Homo sapiens
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620
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 35 40 45
 Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50 55 60
 Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
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<210> 4621
 <211> 2588
 <212> DNA
 <213> Homo sapiens

<400> 4621
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<210> 4622
<211> 403
<212> PRT
<213> Homo sapiens

<400> 4622
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35 40 45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
50 55 60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65 70 75 80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
85 90 95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
100 105 110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
115 120 125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
130 135 140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145 150 155 160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
165 170 175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
180 185 190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
195 200 205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
210 215 220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225 230 235 240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
245 250 255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
260 265 270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
275 280 285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
290 295 300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305 310 315 320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
325 330 335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
340 345 350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

	355		360		365	
Pro	Pro	Ala	Ser	Pro	Gly	Pro
				Pro	Pro	Pro
				Gly	Leu	Ala
				Ala	Ala	Tyr
				Thr	Ala	
	370			375		380
Lys	Met	Ala	Ala	Ala	Asn	Gly
				Ser	Lys	Lys
				Ala	Glu	Arg
					Gln	Lys
					Phe	
	385		390		395	400
Ser	Pro	Tyr				

<210> 4623
 <211> 2220
 <212> DNA
 <213> Homo sapiens

<400> 4623
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 360
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 gagggagatg ccctcccagg ccaactccaag ccctccagg ccatggagag cagccctagg
 720
 aaaggaagta aaaagaagcc agtcaaagtt gaggtccgg aatacatccc cataagtgt
 780
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 840
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 960
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 1020
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 1080
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 1140
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 1200

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 1260
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 2100
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 2220

<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

Met Lys Ser Lys Lys Val Glu Gln Pro Val Ile Glu Glu Pro Ala
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 Leu Lys Arg Lys Lys Lys Lys Arg Lys Glu Ser Gly Val Ala Gly
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 Asp Pro Trp Lys Glu Glu Thr Asp Thr Asp Leu Glu Val Val Leu Glu
 35 40 45
 Lys Lys Gly Asn Met Asp Glu Ala His Ile Asp Gln Val Arg Arg Lys
 50 55 60
 Ala Leu Gln Glu Glu Ile Asp Arg Glu Ser Gly Lys Thr Glu Ala Ser
 65 70 75 80
 Glu Thr Arg Lys Trp Thr Gly Thr Gln Phe Gly Gln Trp Asp Thr Ala
 85 90 95
 Gly Phe Glu Asn Glu Asp Gln Lys Leu Lys Phe Leu Arg Leu Met Gly

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      100      105      110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
      115      120      125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
      130      135      140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
      145      150      155      160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
      165      170      175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
      180      185

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<210> 4625
 <211> 334
 <212> DNA
 <213> Homo sapiens

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180
ctaaagtccc tgcagcagca gcaacagcag cagcagcttc agaaacagca gcagcagcag
240
ctcctgcctg gggacaggaa gcccctgtac cattatgggc ggggcatgaa tcccgcctgac
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aaaccagcct gggcccgaga gggagaagag agac
334

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<210> 4626
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 4626
Arg Glu Gln Arg Lys Leu Gln Glu Lys Glu Gln Gln Arg Arg Leu Glu
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Asp Met Gln Ala Leu Arg Arg Glu Glu Glu Arg Arg Gln Ala Glu Arg
20      25      30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
35      40      45
Arg Leu Gln Arg Gln Leu Gln Gln Glu His Ala Tyr Leu Lys Ser Leu
50      55      60
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln
65      70      75      80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
85      90      95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
100      105      110

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<210> 4627
 <211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttga gcctcttcca tcaagtgga ctagtttgg aggattagga
180
gaagaagctg aatttgtga agttgagcct gaagctaac aggaattct tgaacacaa
240
gatgtggtt ttcaacatgt tcattttgat ggacttgga ggactaaaga tgatcatc
300
atttgtgaaa ttggagatgt tttcaaggcc aaaaacctaa ttgaggtaat gcggaaatct
360
catgaagccc gtgaaaaatt gctccgtctt ggaattttta gacaagtga tgttttgatt
420
gacacatgtc aaggtgatgg cgcacttcca aatgggttag acgttacctt tgaagtaact
480
gaattgagga gattaacggg cagttataac accatggtt ggaacaatga aggcagtatg
540
gtacttgcc tcaagcttcc taatcttctt ggtcgtgcag aaaagtgac ctttcagttt
600
tcctatggaa caaaagaaac ttcgtatggc ctgtccttct tcaaaccag gccgggaaac
660
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720
ctgcgggaga cggacagagg aatgtcagct gactacagtt tcccatatg gaagaccagc
780
cacactgtca agtgggaagg cgtatggcga gaactgggt cctctcaag gacggcgtca
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 1736

<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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 20 25 30
 Pro Glu Ala Lys Gln Glu Ile Leu Glu Asn Lys Asp Val Val Val Gln
 35 40 45
 His Val His Phe Asp Gly Leu Gly Arg Thr Lys Asp Asp Ile Ile Ile
 50 55 60
 Cys Glu Ile Gly Asp Val Phe Lys Ala Lys Asn Leu Ile Glu Val Met
 65 70 75 80
 Arg Lys Ser His Glu Ala Arg Glu Lys Leu Leu Arg Leu Gly Ile Phe
 85 90 95
 Arg Gln Val Asp Val Leu Ile Asp Thr Cys Gln Gly Asp Gly Ala Leu
 100 105 110
 Pro Asn Gly Leu Asp Val Thr Phe Glu Val Thr Glu Leu Arg Arg Leu
 115 120 125
 Thr Gly Ser Tyr Asn Thr Met Val Gly Asn Asn Glu Gly Ser Met Val
 130 135 140
 Leu Gly Leu Lys Leu Pro Asn Leu Leu Gly Arg Ala Glu Lys Val Thr
 145 150 155 160
 Phe Gln Phe Ser Tyr Gly Thr Lys Glu Thr Ser Tyr Gly Leu Ser Phe
 165 170 175
 Phe Lys Pro Arg Pro Gly Asn Phe Glu Arg Asn Phe Ser Val Asn Leu
 180 185 190
 Tyr Lys Val Thr Gly Gln Phe Pro Trp Ser Ser Leu Arg Glu Thr Asp
 195 200 205
 Arg Gly Met Ser Ala Glu Tyr Ser Phe Pro Ile Trp Lys Thr Ser His
 210 215 220
 Thr Val Lys Trp Glu Gly Val Trp Arg Glu Leu Gly Cys Leu Ser Arg
 225 230 235 240
 Thr Ala Ser Phe Ala Val Arg Lys Glu Ser Gly His Ser Leu Lys Ser
 245 250 255
 Ser Leu Ser His Ala Met Val Ile Asp Ser Arg Asn Ser Ser Ile Leu
 260 265 270
 Pro Arg Arg Gly Ala Leu Leu Lys Val Asn Gln Glu Leu Ala Gly Tyr
 275 280 285
 Thr Gly Gly Asp Val Ser Phe Ile Lys Glu Asp Phe Glu Leu Gln Leu
 290 295 300
 Asn Lys Gln Leu Ile Phe Asp Ser Val Phe Ser Ala Ser Phe Trp Gly

305 310 315 320
 Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
 325 330 335
 Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
 340 345 350
 Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
 355 360 365
 Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
 370 375 380
 Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
 385 390 395 400
 Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
 405 410 415
 Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
 420 425 430
 Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
 435 440 445
 Gly Val Gln Thr Gly Asp Arg Ile Cys Asp Gly Val Gln Phe Gly Ala
 450 455 460
 Gly Ile Arg Phe Leu
 465

<210> 4629
 <211> 706
 <212> DNA
 <213> Homo sapiens

<400> 4629
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 180
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 300
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 420
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 600
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 706

<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
 Met Val Asn Arg Glu Arg Glu Gly Gly Pro Trp Lys Cys Val Trp Val
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 20 25 30
 Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

<400> 4631
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 gagtccggccg gctgggactt gcagatcgcg ctagcgagct tttatgagga cggaggggat
 180
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 240
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2340

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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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 Asp Leu Gln Ile Ala Leu Ala Ser Phe Tyr Glu Asp Gly Asp Glu
 35 40 45
 Asp Ile Val Thr Ile Ser Gln Ala Thr Pro Ser Ser Val Ser Arg Gly
 50 55 60
 Thr Ala Pro Ser Asp Asn Arg Val Thr Ser Phe Arg Asp Leu Ile His
 65 70 75 80
 Asp Gln Asp Glu Asp Glu Glu Glu Glu Gly Gln Arg Ser Arg Phe
 85 90 95
 Tyr Ala Gly Gly Ser Glu Arg Ser Gly Gln Gln Ile Val Gly Pro Pro
 100 105 110
 Arg Lys Lys Ser Pro Asn Glu Leu Val Asp Asp Leu Phe Lys Gly Ala
 115 120 125
 Lys Glu His Gly Ala Val Ala Val Glu Arg Val Thr Lys Ser Pro Gly
 130 135 140
 Glu Thr Ser Lys Pro Arg Pro Phe Ala Gly Gly Gly Tyr Arg Leu Gly
 145 150 155 160
 Ala Ala Pro Glu Glu Glu Ser Ala Tyr Val Ala Gly Glu Lys Arg Gln
 165 170 175
 His Ser Ser Gln Asp Val His Val Val Leu Lys Leu Trp Lys Ser Gly
 180 185 190
 Phe Ser Leu Asp Asn Gly Glu Leu Arg Ser Tyr Gln Asp Pro Ser Asn
 195 200 205
 Ala Gln Phe Leu Glu Ser Ile Arg Arg Gly Glu Val Pro Ala Glu Leu
 210 215 220
 Arg Arg Leu Ala His Gly Gly Gln Val Asn Leu Asp Met Glu Asp His
 225 230 235 240
 Arg Asp Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr
 245 250 255
 Gly Glu Gly Gln Lys Leu Gly Ser Thr Ala Pro Gln Val Leu Ser Thr

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Ser Ser Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser
                275                280                285
Ile Leu Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu
                290                295                300
Ala Asp Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile
305                310                315                320
Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala
                325                330                335
Thr Ser Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp
                340                345                350
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                355                360                365
Gln Arg Leu Thr
370

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<210> 4633

<211> 873

<212> DNA

<213> Homo sapiens

<400> 4633

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780
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<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634
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 35 40 45
 Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50 55 60
 Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65 70 75 80
 Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85 90 95
 Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100 105 110
 Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115 120 125
 Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130 135 140
 Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145 150 155 160
 Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165 170 175
 Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180 185 190
 Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195 200 205
 Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
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<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

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<210> 4636
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<212> PRT
<213> Homo sapiens

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35 40 45
Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
50 55 60
Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
65 70 75 80
Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
85 90 95
Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
100 105

<210> 4637
<211> 2162
<212> DNA
<213> Homo sapiens

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<210> 4638

<211> 446
 <212> PRT
 <213> Homo sapiens

<400> 4638
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 35 40 45
 Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
 50 55 60
 Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
 65 70 75 80
 Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
 85 90 95
 Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
 100 105 110
 Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
 115 120 125
 Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
 130 135 140
 Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
 145 150 155 160
 Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
 165 170 175
 Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
 180 185 190
 Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
 195 200 205
 Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
 210 215 220
 Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
 225 230 235 240
 Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
 245 250 255
 His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
 260 265 270
 Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
 275 280 285
 Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
 290 295 300
 Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
 305 310 315 320
 Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
 325 330 335
 His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
 340 345 350
 Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
 355 360 365
 Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
 370 375 380
 Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

385		390		395		400
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Ala Thr Gly Pro Val Cys Leu Asp Asp Glu Asn Glu Phe Pro Pro Ile						
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<210> 4639

<211> 1007

<212> DNA

<213> Homo sapiens

<400> 4639

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<210> 4640

<211> 71

<212> PRT

<213> Homo sapiens

<400> 4640
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 Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
 35 40 45
 Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
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 His Leu Ser Leu Pro Ser Ser
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<210> 4641
 <211> 1873
 <212> DNA
 <213> Homo sapiens

<400> 4641
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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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 35 40 45
 Val Ala Cys Glu Leu Gly Arg Leu Tyr Asn Lys Asp Ala Val Ile Glu
 50 55 60
 Phe Leu Leu Asp Lys Ser Ala Glu Lys Ala Leu Gly Lys Ala Ala Ser
 65 70 75 80
 His Ile Lys Ser Ile Lys Asn Val Thr Glu Leu Lys Leu Ser Asp Asn
 85 90 95
 Pro Ala Trp Glu Gly Asp Lys Gly Asn Thr Lys Gly Asp Lys His Asp
 100 105 110
 Asp Leu Gln Arg Ala Arg Phe Ile Cys Pro Val Val Gly Leu Glu Met
 115 120 125
 Asn Gly Arg His Arg Phe Cys Phe Leu Arg Cys Cys Gly Cys Val Phe
 130 135 140
 Ser Glu Arg Ala Leu Lys Glu Ile Lys Ala Glu Val Cys His Thr Cys

145 150 155 160
 Gly Ala Ala Phe Gln Glu Asp Asp Val Ile Met Leu Asn Gly Thr Lys
 165 170 175
 Glu Asp Val Asp Val Leu Lys Thr Arg Met Glu Glu Arg Arg Leu Arg
 180 185 190
 Ala Lys Leu Glu Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
 195 200 205
 Ser Lys Pro Asp Val Ser Glu Glu Ala Pro Gly Pro Ser Lys Val Lys
 210 215 220
 Thr Gly Lys Pro Glu Glu Ala Ser Leu Asp Ser Arg Glu Lys Lys Thr
 225 230 235 240
 Asn Leu Ala Pro Lys Ser Thr Ala Met Asn Glu Ser Ser Ser Gly Lys
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 Ala Gly Lys Pro Pro Cys Gly Ala Thr Lys Arg Ser Ile Ala Asp Ser
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<210> 4643
 <211> 1125
 <212> DNA
 <213> Homo sapiens

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<210> 4644

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
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Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
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Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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<210> 4645
<211> 1725
<212> DNA
<213> Homo sapiens

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<210> 4646
 <211> 358
 <212> PRT
 <213> Homo sapiens

<400> 4646
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 Pro Arg Ser Ala Ser Ile Lys Asp Ile Lys Lys Ala Tyr Arg Lys Leu
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 Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp Pro Gln Ala Gln
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 Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Glu Val Leu Ser Asp Ser
 65 70 75 80
 Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly Glu Glu Gly Leu Lys Asp
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 Gly His Gln Ser Ser His Gly Asp Ile Phe Ser His Phe Phe Gly Asp
 100 105 110
 Phe Gly Phe Met Phe Gly Gly Thr Pro Arg Gln Gln Asp Arg Asn Ile
 115 120 125
 Pro Arg Gly Ser Asp Ile Ile Val Asp Leu Glu Val Thr Leu Glu Glu
 130 135 140
 Val Tyr Ala Gly Asn Phe Val Glu Val Val Arg Asn Lys Pro Val Ala
 145 150 155 160
 Arg Gln Ala Pro Gly Lys Arg Lys Cys Asn Cys Arg Gln Glu Met Arg
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 Thr Thr Gln Leu Gly Pro Gly Arg Phe Gln Met Thr Gln Glu Val Val
 180 185 190
 Cys Asp Glu Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu
 195 200 205
 Glu Val Glu Ile Glu Pro Gly Val Arg Asp Gly Met Glu Tyr Pro Phe
 210 215 220
 Ile Gly Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg
 225 230 235 240
 Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp
 245 250 255
 Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly
 260 265 270
 Phe Glu Met Asp Ile Thr His Leu Asp Gly His Lys Val His Ile Ser
 275 280 285
 Arg Asp Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp Lys Lys Gly Glu

290 295 300
 Gly Leu Pro Asn Phe Asp Asn Asn Ile Lys Gly Ser Leu Ile Ile
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 Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg
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<210> 4647
 <211> 791
 <212> DNA
 <213> Homo sapiens

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<210> 4648
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 <213> Homo sapiens

<400> 4648
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Arg Thr Ile Leu Met Arg Lys Gly Glu Ser Ala Lys Ser Ile Asn
        65                70                75                80
Glu Met Leu Leu Ser Arg Leu Ser Arg Tyr Arg Ala Ser Pro Ser Ala
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Thr Leu Ala Ala Leu Thr Gly Ser Thr Ile Ser Asn Thr Leu Lys Glu
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Asp Gln Ala Ala Asn Thr Ser Cys Gly Leu Pro Leu Lys Met Leu Arg
                115                120                125
Lys Thr Pro Ile Tyr Thr Cys Gly Thr Tyr Leu Val Met Leu Val Pro
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Pro Pro Gly Gly Ser Gly Ser Ser Ala Thr Arg Ser Leu Phe Gly Gly
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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780

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
	50					55				60					
Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
	65				70					75				80	
Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
			85					90						95	
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
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Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
			115					120				125			
Ala	Ser	Met	Thr	Glu	Thr	Gln	Ile	Asp	Glu	Thr	Arg	Met	Gly	Tyr	Lys

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 Ala Asn Ile Glu Pro Met Tyr Gln Tyr Ser Leu Thr Trp Phe Ile Asn
 165 170 175
 Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn
 180 185 190
 Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn
 195 200 205
 Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Leu Phe Ser Leu
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 225 230 235 240
 Val Trp Tyr Phe Leu Leu Thr Gly Gly Ile Ala Leu Asp Asn Pro Tyr
 245 250 255
 Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile
 260 265 270
 Val Arg Ala Ser Ala Leu Pro Lys Leu His Gly Leu Met Glu His Leu
 275 280 285
 Glu Gln Asn Leu Gly Glu Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro
 290 295 300
 His Glu Glu Gln Leu Pro Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu
 305 310 315 320
 Lys Met Val Ile Leu Arg Cys Leu Arg Pro Asp Lys Met Val Pro Ala
 325 330 335
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 Pro Thr Phe Asp Leu Gln Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala
 355 360 365
 Pro Leu Ile Phe Val Leu Ser Pro Ser Ala Asp Pro Met Ala Gly Leu
 370 375 380
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 385 390 395 400
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 Ala Ala Ser Trp Met Pro Thr Leu Glu Lys Ile Cys Glu Glu Val Ile
 435 440 445
 Val Pro Glu Ser Thr Asn Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr
 450 455 460
 Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met
 465 470 475 480
 Thr Asn Glu Pro Pro Lys Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr
 485 490 495
 Leu Asn Asp Pro Ile Ser Asp Pro Val Phe Phe Gln Ser Cys Ala Lys
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 Val Gly Lys Val Pro Ala Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu
 770 775 780
 Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
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 850 855 860
 Tyr Ile Lys Gly Leu Phe Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr
 865 870 875 880
 Met Gln Ile Gly Glu Ser Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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 Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
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 85 90 95
 Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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Pro Trp Leu Gly Leu Gly Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg
      145      150      155      160
Ser Arg Arg Lys Met Leu Thr Pro Thr Phe His Phe Thr Ile Leu Glu
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Asp Phe Leu Asp Ile Met Asn Glu Gln Ala Asn Ile Leu Val Lys Lys
      180      185      190
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Thr Leu Cys Ala Leu Asp Ile Ile Cys Glu Thr Ala Met Gly Lys Asn
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Ile Gly Ala Gln Ser Asn Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr
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Arg Met Ser Glu Met Ile Phe Pro Arg Ile Lys Met Pro Trp Leu Trp
      245      250      255
Leu Asp Leu Trp Tyr Leu Met Phe Lys Glu Gly Trp Glu His Lys Lys
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<210> 4653
<211> 1276
<212> DNA
<213> Homo sapiens

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 gacctccac cctgggtgct tcgggacgag cggctccgtg gcctgctcg ggaggccgag
 960
 cggcagacaa gacagaccaa acttgactac cgtcatgagc aggcggctga gaagtgctg
 1020
 aagaaggcct ccaaggagat ctaccagctg cgtgggcaga gccacaaaga gccatccaa
 1080
 gtgcagacct ttagggagaa gatagcattc ttcacaaggc caaggatcaa catacctcct
 1140
 ctcccagccg acgacgtctg atggagtgc tttgtcacat gaagtattta tccacctgtt
 1200
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 1260
 ttaatatata catttt
 1276

<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

Met Gly Ile Asp Ser Ile Leu Gly His Pro Phe Ala Ala Gln Ala Gly
 1 5 10 15
 Pro Tyr Ser Pro Glu Lys Phe Gln Pro Ser Pro Leu Lys Val Asp Lys
 20 25 30
 Glu Thr Asn Thr Glu Asp Leu Phe Leu Glu Glu Ala Ala Ser Leu Val
 35 40 45
 Lys Glu Arg Pro Ser Arg Arg Ala Arg Gly Ser Pro Phe Val Arg Ser
 50 55 60
 Gly Thr Ile Val Arg Ser Gln Thr Phe Ser Pro Gly Ala Arg Ser Gln
 65 70 75 80
 Tyr Val Cys Arg Leu Tyr Arg Ser Asp Ser Asp Ser Ser Thr Leu Pro
 85 90 95
 Arg Lys Ser Pro Phe Val Arg Asn Thr Leu Glu Arg Arg Thr Leu Arg
 100 105 110
 Tyr Lys Gln Ser Cys Arg Ser Ser Leu Ala Glu Leu Met Ala Arg Thr
 115 120 125
 Ser Leu Asp Leu Glu Leu Asp Leu Gln Ala Ser Arg Thr Arg Gln Arg
 130 135 140
 Gln Leu Asn Glu Glu Leu Cys Ala Leu Arg Glu Leu Arg Gln Arg Leu
 145 150 155 160
 Glu Asp Ala Gln Leu Arg Gly Gln Thr Asp Leu Pro Pro Trp Val Leu
 165 170 175
 Arg Asp Glu Arg Leu Arg Gly Leu Leu Arg Glu Ala Glu Arg Gln Thr
 180 185 190
 Arg Gln Thr Lys Leu Asp Tyr Arg His Glu Gln Ala Ala Glu Lys Met

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          195                200                205
Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His
          210                215                220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe
225          230          235          240
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val
          245          250          255

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<210> 4655
 <211> 456
 <212> DNA
 <213> Homo sapiens

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<400> 4655
gcggccgcgc aggtcctcgc gcttgcgga ggtgcgcacg tactccatgc ggtccagcgc
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120
cgccacgggg tccgcccgcg cgcgccgcgc cgccttgtag ttctggaaga tgaagtagag
180
cttgatctcc agcacgaaga tgtaaaggaa ccacaggatc atggcgtagc cgcgcttgcc
240
cgtgcgcacc tcggcgccca cccacacggc cacgtagcgc agcaccagca ggaagcacac
300
gtcgccccacc agcacgatga tgcacacgcc gatcttgccg gggccctggg tctgtccacc
360
cagggtacgcg tccatgacgg ccatgctgcc catgatcacc agcgtggtca ggcacacgtg
420
gcgccggtcc gggggcgcca gcaccatggt cggccg
456

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<210> 4656
 <211> 152
 <212> PRT
 <213> Homo sapiens

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<400> 4656
Ala Ala Ala Gln Val Leu Ala Leu Ala Glu Gly Ala His Val Leu His
1          5          10          15
Ala Val Gln Arg His Glu Gln Gln Glu Gln Ala Gly His Thr His Arg
20          25          30
Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala
35          40          45
Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln
50          55          60
His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly
65          70          75          80
Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln
85          90          95
Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu
100          105          110
Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His
115          120          125
Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg

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130 135 140
 Gly Arg Gln His His Gly Arg Pro
 145 150

<210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4657
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 aaccagctgc accgcaagtc tgtcaagaag gggtttgact tcacgctaata ggtggcaggg
 120
 ggtcaggcc tagggaaatc caccctcatc aacagcctct tctcaccac cctctatgag
 180
 gatcgccagg tgccagaggg cagtgtctgc ttgacacaga ccttggccat tgagcgccgg
 240
 ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga ccttgttga cacacctggc
 300
 tttggggact cagtggactg ctctgactgc tggcttccgg tgggtgaaatt catcgaggag
 360
 caatttgagc agtaccttag ggatgagagt ggcctgaacc ggaagaacat ccaggactcc
 420
 cgagtccact gctgctctta ctctcatctc ccttccggc gggctccggc ccctagatgt
 480
 ggcttctctc gggcaatata cgagaaagtc aacatcatcc cagtcattgg caaagcggat
 540
 gccctgatgc cccaggaaac ccaggccctc aagcagaaga tccgggatca gttgaaggaa
 600
 gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag
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 aggcaggatg cagagatgaa ggaaagcatc ccttttgcag tcgtgggatc atgcgagggtg
 720
 gta
 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
 Met Asp Lys Glu Tyr Val Gly Phe Ala Ala Leu Pro Asn Gln Leu His
 1 5 10 15
 Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met Val Ala Gly
 20 25 30
 Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

```

      85      90      95
Val Asp Cys Ser Asp Cys Trp Leu Pro Val Val Lys Phe Ile Glu Glu
      100      105      110
Gln Phe Glu Gln Tyr Leu Arg Asp Glu Ser Gly Leu Asn Arg Lys Asn
      115      120      125
Ile Gln Asp Ser Arg Val His Cys Cys Leu Tyr Phe Ile Ser Pro Phe
      130      135      140
Gly Arg Ala Pro Ala Pro Arg Cys Gly Phe Leu Arg Ala Ile His Glu
      145      150      155      160
Lys Val Asn Ile Ile Pro Val Ile Gly Lys Ala Asp Ala Leu Met Pro
      165      170      175
Gln Glu Thr Gln Ala Leu Lys Gln Lys Ile Arg Asp Gln Leu Lys Glu
      180      185      190
Glu Glu Ile His Ile Tyr Gln Phe Pro Glu Cys Asp Ser Asp Glu Asp
      195      200      205
Glu Asp Phe Lys Arg Gln Asp Ala Glu Met Lys Glu Ser Ile Pro Phe
      210      215      220
Ala Val Val Gly Ser Cys Glu Val Val
      225      230

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<210> 4659

<211> 864

<212> DNA

<213> Homo sapiens

<400> 4659

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agagaatctc accacaaatg aaaactacgt gaaaggccct gcaactgaaa tgcaagctca
120
ggcgccggtg gtcgttgtga cccaacctgg agtcggtccc ggtccggccc ccagaaactc
180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
atcttgtttc cgtgccttg ggtgtcaagt tgcagctgat atgaatgaat gctgtctgtg
300
tggaacaagc gtcgcaatga ggactctcta caggaccga tatggcatcc ctggatctat
360
ttgtgatgac tatatggcaa ctctttgctg tcctcattgt actctttgcc aaatcaagag
420
agatatcaac agaaggagag ccatgcgtac tttctaaaaa ctgatgggtga aaagctctta
480
ccgaagcaac aaaattcagc agacacctct tcagcttgag ttcttcacca tcttttgcaa
540
ctgaaatatg atggatatgc ttaagtacaa ctgatggcat gaaaaaaatc aaatttttga
600
tttattataa atgaatgttg tccctgaact tagctaaatg gtgcaactta gtttctcctt
660
gctttcatat tatcgaattc gaatttcctg gcttataaac tttttaaatt acatttgaaa
720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
780
atgtcttttt cactagttag ttccaagggt cagtctcata atttgttctt tatactttga
840

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tttcccttttt cttttttttt ttg
864

<210> 4660
<211> 192
<212> PRT
<213> Homo sapiens

<400> 4660
Met Pro Ser Val Val Leu Lys His Ile His His Ile Ser Val Ala Lys
1 5 10 15
Asp Gly Glu Glu Leu Lys Leu Lys Arg Cys Leu Leu Asn Phe Val Ala
20 25 30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
<211> 153
<212> DNA
<213> Homo sapiens

<400> 4661
cggatctgca tgccgctcac cgtagacgag tacaaaattg gacagctgta catgatcagc
60
aaacacagcc atgaacagag tgaccgggga gaaggggtgg aggtcgtcca gaatgagccc
120
tttgaggacc ctcacatgg ccattgggag ttc
153

<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu

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      1           5           10           15
Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly
      20           25           30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His
      35           40           45
Gly Gln Phe
      50

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<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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atgttccggc acacggacag cctctttccc atcctactgc agacgttata ggatgaatcg
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gatgaggtga tcctgaagga cctggaggtg ctggcagaaa tcgcttcctc ccccgaggc
120
cagacgggatg acccaggccc cctcgatggc cctgacctcc aggcagcca ctcagagctc
180
caggtgcccc cccctggcag agccggccta ctgaacacct ctggtaccaa aggcttagaa
240
tggtctcctt caactccac catgaattct tacttttata agttcatgat caaccttctc
300
aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag
360
ctgtgcctcc tgctgaatgc ggagaacatc ttccactcaa tggcagacat cctgctgcgg
420
gaggaggacc tcaagtctgc ctcgaccatg gtccacgccc tcaacaccat cctgctgacc
480
tccacagagc tcttccagct aaggaaccag ctgaaggacc tgaagacctt ggagagccag
540
aacctgttct gctgcctgta ccgctcctgg tggcacaacc cagtcaccac ggtgtccctc
600
tgcttctca cccagaacta ccggcacgcc tatgacctca tccagaagtt tggggacctg
660
gaggtcaccg tggacttcct cgcagaggtg gacaagctgg tgcagctgat tgagtgtccc
720
atcttcacat atctgcgcct gcagctgctg gacgtgaaga acaaccctca cctgatcaag
780
gccctctacg gcctgctcat gctcctgccg cagagcagcg ccttccagct gctctcgac
840
cggtctcagt gcgtgcccac ccctgagctg ctgcagaccg aagacagtct aaaggcagcc
900
cccaagtccc agaaagctga ctcccctagc atcgactacg cagagctgct gcagcacttt
960
gagaaggtcc agaacaagca cctggaagtg cggcaccagc ggagcgggag tggggaccac
1020
ctggaccgga ggggtgtcct ctgacaggcc tggcacggag gagggccac cgagtgggcc
1080
catgaaacac taagggtcgt cagccctcc cgaggagctc aaggacctgc ctgtcaggac
1140
cagggctggg cctgcccaacc cagggcagtg ttggggccgg aggctgctgt gtctgcccc
1200

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gtctctctca gattccagtc cccaggcctc cagcgctgtc agctgcaccc tggcattctc
1260
acagagctgg ctgcccaccc agtggggggc tatagcctca gagaccactc atcctctgga
1320
atcaacctct ttctaatacc ctcttgaaa aagagcttgc cctctctcca gcacactaga
1380
gctctggcct tgtgtgtata tgtatacata cgtgaacaca tgcctgtgtg tgtgtgtgtg
1440
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1500
ccccaataaa gaaataacag aaaacctca aaaaaaaaaa aaaaaaaaaa
1550

<210> 4664
<211> 347
<212> PRT
<213> Homo sapiens

<400> 4664
Met Phe Arg His Thr Asp Ser Leu Phe Pro Ile Leu Leu Gln Thr Leu
1 5 10 15
Ser Asp Glu Ser Asp Glu Val Ile Leu Lys Asp Leu Glu Val Leu Ala
20 25 30
Glu Ile Ala Ser Ser Pro Ala Gly Gln Thr Asp Asp Pro Gly Pro Leu
35 40 45
Asp Gly Pro Asp Leu Gln Ala Ser His Ser Glu Leu Gln Val Pro Thr
50 55 60
Pro Gly Arg Ala Gly Leu Leu Asn Thr Ser Gly Thr Lys Gly Leu Glu
65 70 75 80
Cys Ser Pro Ser Thr Pro Thr Met Asn Ser Tyr Phe Tyr Lys Phe Met
85 90 95
Ile Asn Leu Leu Lys Arg Phe Ser Ser Glu Arg Lys Leu Leu Glu Val
100 105 110
Arg Gly Pro Phe Ile Ile Arg Gln Leu Cys Leu Leu Asn Ala Glu
115 120 125
Asn Ile Phe His Ser Met Ala Asp Ile Leu Leu Arg Glu Glu Asp Leu
130 135 140
Lys Phe Ala Ser Thr Met Val His Ala Leu Asn Thr Ile Leu Leu Thr
145 150 155 160
Ser Thr Glu Leu Phe Gln Leu Arg Asn Gln Leu Lys Asp Leu Lys Thr
165 170 175
Leu Glu Ser Gln Asn Leu Phe Cys Cys Leu Tyr Arg Ser Trp Cys His
180 185 190
Asn Pro Val Thr Thr Val Ser Leu Cys Phe Leu Thr Gln Asn Tyr Arg
195 200 205
His Ala Tyr Asp Leu Ile Gln Lys Phe Gly Asp Leu Glu Val Thr Val
210 215 220
Asp Phe Leu Ala Glu Val Asp Lys Leu Val Gln Leu Ile Glu Cys Pro
225 230 235 240
Ile Phe Thr Tyr Leu Arg Leu Gln Leu Leu Asp Val Lys Asn Asn Pro
245 250 255
Tyr Leu Ile Lys Ala Leu Tyr Gly Leu Leu Met Leu Leu Pro Gln Ser
260 265 270
Ser Ala Phe Gln Leu Leu Ser His Arg Leu Gln Cys Val Pro Asn Pro

275	280	285
Glu Leu Leu Gln Thr Glu Asp Ser Leu Lys Ala Ala Pro Lys Ser Gln		
290	295	300
Lys Ala Asp Ser Pro Ser Ile Asp Tyr Ala Glu Leu Leu Gln His Phe		
305	310	315
Glu Lys Val Gln Asn Lys His Leu Glu Val Arg His Gln Arg Ser Gly		
320	325	330
Arg Gly Asp His Leu Asp Arg Arg Val Val Leu		
340	345	

<210> 4665

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 4665

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120
aaagagaaag agccagtggg tgttgagaca gtagaagaga aaaaggaacc tatcctagtg
180
tgtccacctt tacgaagccg agcatcacaca ccacctgaag atctccagag tcgtttggaa
240
tcttacgtta aagaagtttt tggttcatct cttcctagta attggcaaga catctccctg
300
gaagatagtc gtctaaagtt caatcttctg gtcattttag ctgatgactt gggatcatgta
360
gtccctaact ccagactcca ccagatgtgc aggggttagag atgtttctga tttctataat
420
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480
ttgaaaatca cttggagtta ctaagcaatt cggaagagaa acacattgaa atcactgtct
540
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600
cagaactgtt ctctaaacc accctttctg tagaggaatg tatcatcttt ttttttctca
660
tattacaaat ggacaaataa cggactttct attttcatat ttgctgaaac ctttttttaa
720
atgaaattag gtcattatct atgaaaagtt ttgagagggc actgtcaact tgggtttaag
780
acaggaggac attgcaagtt cacaccttcc ataagcataa agtagttgca agaaagtatt
840
ttcatcctgt taggattcat atctaagata gagttatgca ttgcacatac acaataaac
900
ttttattaga tagataccta taaaagaaac ataaaagtat gttgtgtatt actgacagtt
960
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1020
aaaaaaaaaa aaaaaaaaaa aaa
1043

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<210> 4666

<211> 167
<212> PRT
<213> Homo sapiens

<400> 4666
Xaa Arg His Glu Gly Gly Ser His Arg Lys Ala Ala Arg Ser Val Ser
1 5 10 15
Gly Ile Thr Arg Arg Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys
20 25 30
Arg Glu Phe Thr Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
35 40 45
Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
50 55 60
Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
65 70 75 80
Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
85 90 95
Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
100 105 110
Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
115 120 125
Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
130 135 140
Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
145 150 155 160
Leu Lys Ile Thr Trp Ser Tyr
165

<210> 4667
<211> 1031
<212> DNA
<213> Homo sapiens

<400> 4667
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120
cctctgctgg aggggaaagc ccgctcctgt tttgctatga ccgagcccca ggttgctctt
180
tcagatgccca ccaacattga ggcttccatc agagaggagg acagcttcta tgtcataaac
240
ggtcacaaat ggtggatcac aggcacccctg gatcctcgtt gccaaactctg tgtgtttatg
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gataccccag ggataaaaat catccggcct ctgacggtgt atggactgga agatgcacca
420
ggtggccatg gtgaagtcg atttgagcac gtgcgtgtgc ccaaagagaa catggctcctg
480
ggccctggcc gaggtttga gatcgcccag ggcagactgg gccccggcag gatccatcac
540
tgcatgaggc tgatcgggtt ctgagagagg gccctggcac tcataaaggc ccgctgagtg
600

gctttccccc gcaccagca ctgactcaga accaccacct tctgctttgc tgcggactt
 660
 caattcctac ctgtttctg agtgcagtc tagcaggtag agcaaggtag tgccttgcc
 720
 aagaagttgc attcctgtct gctttgcac tgctactttg ctgcagtttg gattcagagc
 780
 agaatggacc ccactctgtc gaggtgacct gaagggaaac gccaggctct gtagcagcag
 840
 agggcaaggt tccaagggtt aaaggtcatg ctgctagcac attattaaaa atcagtctgg
 900
 gtgcaatggc tcacagctat aatcccagta ctttgggagg tctaggtagg aggggtgctt
 960
 gaagccaagc atttgagacc agcctaggcg aaaaagagag actcagtctc tacaacaaaa
 1020
 aaaaaaaaaa a
 1031

<210> 4668

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4668

Xaa	Ala	Met	Gly	Thr	Ser	Leu	Tyr	Ala	Pro	Glu	Val	Cys	Asn	Cys	Ser
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Ala	Pro	Asp	Thr	Gly	Asn	Met	Glu	Leu	Leu	Val	Arg	Tyr	Gly	Thr	Glu
			20					25					30		
Ala	Gln	Lys	Ala	Arg	Trp	Leu	Ile	Pro	Leu	Leu	Glu	Gly	Lys	Ala	Arg
			35				40					45			
Ser	Cys	Phe	Ala	Met	Thr	Glu	Pro	Gln	Val	Ala	Ser	Ser	Asp	Ala	Thr
			50			55					60				
Asn	Ile	Glu	Ala	Ser	Ile	Arg	Glu	Glu	Asp	Ser	Phe	Tyr	Val	Ile	Asn
					70				75					80	
Gly	His	Lys	Trp	Trp	Ile	Thr	Gly	Ile	Leu	Asp	Pro	Arg	Cys	Gln	Leu
					85				90					95	
Cys	Val	Phe	Met	Gly	Lys	Thr	Asp	Pro	His	Ala	Pro	Arg	His	Arg	Gln
			100					105					110		
Gln	Ser	Val	Leu	Leu	Val	Pro	Met	Asp	Thr	Pro	Gly	Ile	Lys	Ile	Ile
			115					120				125			
Arg	Pro	Leu	Thr	Val	Tyr	Gly	Leu	Glu	Asp	Ala	Pro	Gly	Gly	His	Gly
						135					140				
Glu	Val	Arg	Phe	Glu	His	Val	Arg	Val	Pro	Lys	Glu	Asn	Met	Val	Leu
					150					155				160	
Gly	Pro	Gly	Arg	Gly	Phe	Glu	Ile	Ala	Gln	Gly	Arg	Leu	Gly	Pro	Gly
					165				170					175	
Arg	Ile	His	His	Cys	Met	Arg	Leu	Ile	Gly	Phe	Ser	Glu	Arg	Ala	Leu
					180				185					190	
Ala	Leu	Met	Lys	Ala	Arg	Val	Ser	Ala	Phe	Pro	Arg	Thr	Gln	His	
					195			200					205		

<210> 4669

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4669
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 120
 gacatgaaca taaaaaaca gattcaggaa cagcaccagg ctgccattat tattcagaag
 180
 cattgtaaag cctttaaaat aaggaagcat tatctccaca ttagagcaac agtagtttct
 240
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag
 300
 tcttattaca gaggtcttaa agtacgaaag gatattcaaa atatgcaccg ggctgccaca
 360
 ctaattcagt cattctatcg aatgcacagg gccaaagttg attattaaac aaagaaaact
 420
 gcaattgtgg ttatacagaa ttattatagg ttgtatgtta gagtaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcataaaa
 540
 gttagacaaa aattgaaaaa atgtatcaga ggaaaagatg gcagccattg ttaaccaatc
 600
 tgcactctgc tgttacagaa gtaaaactca gtatgaagct gttcaaagtg aaggtgttat
 660
 gattcaagag tgggtataag ctt
 683

<210> 4670
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4670
 Xaa Ser Phe Ser Gly Leu Arg Gly Ile Ile Gln Glu Lys Tyr Arg Ala
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 Asn Lys Lys Lys Gln Lys Val Phe Gln His Asn Glu Leu Lys Lys Glu
 20 25 30
 Thr Cys Val Gln Ala Gly Phe Gln Asp Met Asn Ile Lys Lys Gln Ile
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 Gln Glu Gln His Gln Ala Ala Ile Ile Ile Gln Lys His Cys Lys Ala
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 Phe Lys Ile Arg Lys His Tyr Leu His Ile Arg Ala Thr Val Val Ser
 65 70 75 80
 Ile Gln Arg Arg Tyr Arg Lys Leu Thr Ala Val Arg Thr Gln Ala Val
 85 90 95
 Ile Cys Ile Gln Ser Tyr Tyr Arg Gly Phe Lys Val Arg Lys Asp Ile
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 Gln Asn Met His Arg Ala Ala Thr Leu Ile Gln Ser Phe Tyr Arg Met
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<210> 4671
 <211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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 Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
 35 40 45
 Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
 50 55 60
 Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
 65 70 75 80
 Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
 85 90 95
 Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu
 100 105 110
 Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
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<210> 4673
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<400> 4673
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<210> 4674

<211> 402

<212> PRT

<213> Homo sapiens

<400> 4674

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Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
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85      90      95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
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Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
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Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
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Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
165     170     175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
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Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
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Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
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Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
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Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
245     250     255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
260     265     270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
275     280     285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
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Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
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325     330     335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
340     345     350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
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385
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395

400

<210> 4675
<211> 2868
<212> DNA
<213> Homo sapiens

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<210> 4676

<211> 641
 <212> PRT
 <213> Homo sapiens

<400> 4676
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 35 40 45
 Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
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 Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
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 Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
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 Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
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 Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
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 Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
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 Gly Ser Lys Arg Ser Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
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 Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Ser Pro
 165 170 175
 Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
 180 185 190
 Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Asn
 195 200 205
 Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
 210 215 220
 Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
 225 230 235 240
 Pro Glu Gln Tyr Leu Thr Pro Leu Gln Lys Glu Val Thr Val Arg
 245 250 255
 His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
 260 265 270
 Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
 275 280 285
 Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
 290 295 300
 Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
 305 310 315 320
 Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
 325 330 335
 Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
 340 345 350
 Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
 355 360 365
 Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
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 Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu

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385          390          395          400
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Asp Leu Phe Asp Glu Ile Val Thr Ala Thr Thr Thr Glu Ser Gly Asp
          420          425          430
Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
          435          440          445
Pro Ile Val Met Gly Gln Glu Glu Gly Ser Val Val Glu Arg Ala
          450          455          460
Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
          465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
Leu Ser Ala Leu Val Val Asp Leu Thr Pro Arg Asn Pro Asn Ser Ala
          515          520          525
Ile Leu Leu Ser Pro Val Glu Thr Pro Tyr Xaa Gln Cys Gly Cys Arg
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Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
          545          550          555          560
Val Glu Glu Arg Leu Asp Gly Val Ile Pro Leu Ala Arg Gly Gly Val
          565          570          575
Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
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Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
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<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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<210> 4678

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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 Arg Gly Ser Leu Ser Ser Ser Ser Ser Ser Ser Ser Leu Thr Lys
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 Asp Ala Leu Pro Ser Ser Leu Lys Ser Asp Ser Thr Thr Ile Thr Ser
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 Gly Leu Val Phe Pro Phe Arg Ser Leu Cys Val Asn Pro Ala Lys Ser
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<210> 4679

<211> 2284

<212> DNA

<213> Homo sapiens

<400> 4679

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 Ile Ala Gly Pro Gln Thr Phe Gln Gly Lys His Cys Phe Thr Ser Cys
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 Thr Ala Gly Ala Gly Val Cys Lys Ile Lys Glu Gly Gln Leu Arg Thr
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<210> 4681
 <211> 906
 <212> DNA
 <213> Homo sapiens

<400> 4681
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 420
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 480
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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

Met	Gly	Ser	His	Leu	Phe	Ile	Ser	Gly	Phe	Ser	Tyr	Asn	Pro	Val	Phe
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Lys	Glu	Met	Leu	Gln	Lys	Phe	Lys	Phe	Ser	His	Val	Tyr	Phe	Lys	Gln
			20					25					30		
Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
			35				40				45				
Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
			50				55				60				
Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
				70					75					80	
Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
				85					90					95	
Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
			100					105					110		
His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
			115				120					125			
Leu	Asp	Phe	Cys	Val	Leu	Arg	Thr	Gln	Lys	Gly	Ala	Thr	Leu	Leu	Phe
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<210> 4683
<211> 3246
<212> DNA
<213> Homo sapiens

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3246

<210> 4684
<211> 385
<212> PRT
<213> Homo sapiens

<400> 4684
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Pro His Ala Arg Ser Arg Val Arg Pro Ala Pro Lys Thr Ile Pro Gln
35 40 45
Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
50 55 60
Cys Asp Glu Ala Leu Ala Cys Ala Leu Leu Arg Leu Leu Pro Glu Tyr
65 70 75 80
Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
85 90 95
Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
100 105 110
Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
115 120 125
Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
130 135 140
Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
145 150 155 160
Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
165 170 175
Phe Val Glu Glu Val Asp Ala Val Asp Asn Gly Ile Ser Gln Trp Ala
180 185 190
Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
195 200 205
Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
210 215 220
Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
225 230 235 240
Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
245 250 255
Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
260 265 270
Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
275 280 285
Glu Ser Gly Leu Ser Pro Pro Val Ala Ile Phe Phe Val Ile Tyr Thr
290 295 300
Asp Gln Ala Gly Gln Trp Arg Ile Gln Cys Val Pro Lys Glu Pro His

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305          310          315          320
Ser Phe Gln Ser Arg Leu Pro Leu Pro Glu Pro Trp Arg Gly Leu Arg
          325          330          335
Asp Glu Ala Leu Asp Gln Val Ser Gly Ile Pro Gly Cys Ile Phe Val
          340          345          350
His Ala Ser Gly Phe Ile Gly Gly His Arg Thr Arg Glu Gly Ala Leu
          355          360          365
Ser Met Ala Arg Ala Thr Leu Ala Gln Arg Ser Tyr Leu Pro Gln Ile
          370          375          380
Ser
385

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<210> 4685
<211> 618
<212> DNA
<213> Homo sapiens

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<400> 4685
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480
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<210> 4686
<211> 106
<212> PRT
<213> Homo sapiens

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<400> 4686
Gly Leu Ser Asp His Pro His Val His Thr Ala Ser Arg Ala Ala Ala
1      5      10      15
Asp Ala Arg Gly Arg Ala Gly His Arg Ser Ala Ala Ala Ser Asn Leu
20     25     30
Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
35     40     45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

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```

      50              55              60
Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
65              70              75              80
Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
      100              105

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<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

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<400> 4687
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120
cggcgctctc gcacccccctg tgggtggcat tgatgagcgc cctaatacctg ggtctgcttt
180
tcgtggcggc ctacagcttg tcccatggcg aggtctccta tgaccactc tatgctggct
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atgggggggg
309

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<210> 4688
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 4688
Met Asp Ile Pro Pro Leu Ala Gly Lys Ile Ala Ala Leu Ser Leu Ser
1      5      10      15
Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
20     25     30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
35     40     45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
50     55     60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65     70     75     80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
      85      90

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<210> 4689
 <211> 898
 <212> DNA
 <213> Homo sapiens

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<400> 4689
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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

Xaa Pro Arg Pro Ser Arg Arg Ile Ala Pro Leu Asp Gly Ala Arg Leu
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 20 25 30
 Ser Ala Pro Glu Asp Leu Met Phe Leu Leu Asp Ser Ser Ala Ser Val
 35 40 45
 Ser His Tyr Glu Phe Ser Arg Val Arg Glu Phe Val Gly Gln Leu Val
 50 55 60
 Ala Pro Leu Pro Leu Ala Pro Xaa Ala Leu Arg Ala Ser Leu Val His
 65 70 75 80
 Val Gly Ser Arg Pro Tyr Thr Glu Phe Pro Phe Gly Gln His Ser Ser
 85 90 95
 Gly Glu Ala Ala Gln Asp Ala Val Arg Ala Ser Ala Gln Arg Met Gly
 100 105 110
 Asp Thr His Thr Gly Leu Ala Leu Val Tyr Ala Lys Glu Gln Leu Phe
 115 120 125
 Ala Glu Ala Ser Gly Ala Arg Pro Gly Val Pro Lys Val Leu Val Trp
 130 135 140
 Val Thr Asp Gly Gly Ser Ser Asp Pro Val Gly Pro Pro Met Gln Glu

145 150 155 160
 Leu Lys Asp Leu Gly Val Thr Val Phe Ile Val Ser Thr Gly Arg Gly
 165 170 175
 Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
 180 185 190
 Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
 195 200 205
 Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
 210 215 220
 Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
 225 230 235 240
 Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
 245 250 255
 Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
 260 265 270
 Trp Ala Gly Leu Asp Pro Asp Thr Asp Tyr Asp Val Ala Leu Val Pro
 275 280 285
 Glu Ser Asn Val Arg Leu Leu Arg Pro Gln Ile
 290 295

<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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2375

<210> 4692

3880

<211> 383
<212> PRT
<213> Homo sapiens

<400> 4692
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35 40 45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
50 55 60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
65 70 75 80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
85 90 95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
100 105 110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
115 120 125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
130 135 140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
145 150 155 160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
165 170 175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
180 185 190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
195 200 205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
210 215 220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
225 230 235 240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
245 250 255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
260 265 270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
275 280 285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
290 295 300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
305 310 315 320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
325 330 335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
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His Arg Tyr Gln Ala Asn Leu Glu Ile Thr Gly Pro Lys Val Ala Ser
355 360 365
Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
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<210> 4693

<211> 794

<212> DNA

<213> Homo sapiens

<400> 4693

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<210> 4694

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4694

Met Ala Asp Asp Lys Asp Ser Leu Pro Lys Leu Lys Asp Leu Ala Phe
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 20 25 30
 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu
 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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 2040
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 2209

<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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			20					25					30		
Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu	Val	Asp	Glu	Pro
		35				40						45			
Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
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Val	Ala	Ala	Val	Ser	Ile	Thr	Gly	Arg	Lys	Arg	Ser	Arg	Val	Ala	Pro
65				70				75					80		
Ala	Glu	Pro	Gln	Glu	Ala	Pro	Asp	Ser	Thr	Ala	Ala	Xaa	Glu	Ala	Gln
			85					90					95		
Pro	Arg	Ser	Xaa	Met	Ala	Leu	Val	Leu	Glu	Arg	Val	Cys	Ser	Thr	Leu
		100						105				110			
Leu	Gly	Leu	Glu	Glu	His	Leu	Asn	Ala	Leu	Asp	Arg	Ala	Ala	Gly	Asp
		115				120					125				
Gly	Asp	Cys	Gly	Thr	Thr	His	Ser	Arg	Ala	Ala	Arg	Ala	Ile	Gln	Glu
		130				135					140				
Trp	Leu	Lys	Glu	Gly	Pro	Pro	Pro	Ala	Ser	Pro	Ala	Gln	Leu	Leu	Ser

145 150 155 160
 Lys Leu Ser Val Leu Leu Leu Glu Lys Met Gly Gly Ser Ser Gly Ala
 165 170 175
 Leu Tyr Gly Leu Phe Leu Thr Ala Ala Ala Gln Pro Leu Lys Ala Lys
 180 185 190
 Thr Ser Leu Pro Ala Trp Ser Ala Ala Met Asp Ala Gly Leu Glu Ala
 195 200 205
 Met Gln Lys Tyr Gly Lys Ala Ala Pro Gly Asp Arg Thr Met Leu Asp
 210 215 220
 Ser Leu Trp Ala Ala Glu Gln Glu Leu Gln Ala Trp Lys Ser Pro Gly
 225 230 235 240
 Ala Asp Leu Leu Gln Val Leu Thr Lys Ala Val Lys Ser Ala Glu Ala
 245 250 255
 Ala Ala Glu Ala Thr Lys Asn Met Glu Ala Gly Ala Gly Arg Ala Ser
 260 265 270
 Tyr Ile Ser Ser Ala Arg Leu Glu Gln Pro Asp Pro Gly Ala Val Ala
 275 280 285
 Ala Ala Ala Ile Leu Arg Ala Ile Leu Glu Val Leu Gln Ser
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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 780
 aacctcaagg tgccaaaaag ttaaatgttg agtatgaatc tggctatttt ctgctttaa
 840

tgggtgtgtct ttaagtgtgt tttataacaa tgggatagat taattattaa gatgtttctg
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<210> 4698
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4698
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 Asp Ala Asp Ile Pro Leu Glu Leu Val Phe His Leu Pro Val Asn Tyr
 35 40 45
 Pro Ser Cys Leu Pro Gly Ile Ser Ile Asn Ser Glu Gln Leu Thr Arg
 50 55 60
 Ala Gln Cys Val Thr Val Lys Glu Lys Leu Leu Glu Gln Ala Glu Ser
 65 70 75 80
 Leu Leu Ser Glu Pro Met Val His Glu Leu Val Leu Trp Ile Gln Gln
 85 90 95
 Asn Leu Arg His Ile Leu Ser Gln Pro Glu Thr Gly Ser Gly Ser Glu
 100 105 110
 Lys Cys Thr Phe Ser Thr Ser Thr Thr Met Asp Asp Gly Leu Trp Ile
 115 120 125
 Thr Leu Leu His Leu Asp His Met Arg Ala Lys Thr Lys Tyr Val Lys
 130 135 140
 Ile Val Glu Lys Trp Ala Ser Asp Leu Arg Leu Thr Gly Arg Leu Met
 145 150 155 160
 Phe Met Gly Lys Ile Ile Leu Ile Leu Leu Gln Gly Asp Arg Asn Asn
 165 170 175
 Leu Lys Val Pro Lys Ser
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<210> 4699
 <211> 1441
 <212> DNA
 <213> Homo sapiens

<400> 4699
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<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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 Ile Cys Cys Pro Arg His Pro Leu Met Arg Leu Lys Leu Gly Pro Ser

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          35          40          45
Glu Thr Ala Ala Pro Tyr Arg Ala Cys Trp Leu Cys Arg Gly Glu
   50          55          60
Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
   65          70          75          80
Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
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Thr Ser Lys Glu Leu Leu Leu Ile Cys Lys Ala Ile Leu Leu Leu
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Ser Asn Leu Val
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<210> 4701
 <211> 812
 <212> DNA
 <213> Homo sapiens

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<400> 4701
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720
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812

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<210> 4702
 <211> 69
 <212> PRT
 <213> Homo sapiens

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<400> 4702
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Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20           25           30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35           40           45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
      50           55           60
Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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      20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85           90           95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

<210> 4705
 <211> 569
 <212> DNA
 <213> Homo sapiens

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 240
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 360
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 420
 actaaaacgt gggctcctca tgtgcacccc attcagcctg tctgtgcttc cggaggtcag
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<210> 4706
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 4706
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 20 25 30
 Thr Glu Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val
 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
 115 120 125
 Ile Val Phe Trp Leu Val Leu Lys Phe Leu Arg Leu Val Met Ser
 130 135 140
 Leu Gly Leu Ala Ser Val Phe His Cys Pro

145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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600
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<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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35 40 45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
50 55 60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
65 70 75 80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
85 90 95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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Ser	Gly	Ser	Glu	Lys	Lys
		Lys	Lys	Met	Ser
			Asp	Asp	Pro
				Val	Glu
				Asp	Asp
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<210> 4709

<211> 1351

<212> DNA

<213> Homo sapiens

<400> 4709

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<210> 4710

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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 20           25           30
Tyr Gly Glu Val Val Asp Cys Val Ile Met Lys Asp Lys Thr Thr Asn
 35           40           45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
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Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
 65           70           75           80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
 85           90           95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
100          105          110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
115          120          125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
130          135          140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
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Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
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Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
180          185          190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
195          200          205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
210          215          220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225          230          235          240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Ala Gly Arg Gly Ala Pro
245          250          255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
260          265          270
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Gln Phe Ser Phe Gly Tyr Gly Pro Pro Pro Pro Pro Gly Ser Arg
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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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<210> 4712
<211> 187
<212> PRT
<213> Homo sapiens

<400> 4712
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35 40 45
Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Ala Gln
50 55 60
Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
65 70 75 80
Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
85 90 95
Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
100 105 110
Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu
115 120 125
Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp
130 135 140
Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
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<210> 4713
<211> 1324
<212> DNA
<213> Homo sapiens

<400> 4713

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<210> 4714

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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Val Gln Val Val Gly Arg Ala Phe Ala Arg Ala Leu Arg Gln Glu Phe
      35           40           45
Ala Ala Ser Arg Ala Ala Ala Asp Ala Arg Gly Arg Ala Gly His Arg
      50           55           60
Ser Ala Ala Ala Ser Asn Leu Ser Gly Leu Ser Leu Gln Glu Ala Gln
      65           70           75           80
Gln Ile Leu Asn Val Ser Lys Leu Ser Pro Glu Glu Val Gln Lys Asn
      85           90           95
Tyr Glu His Leu Phe Lys Val Asn Asp Lys Ser Val Gly Gly Ser Phe
      100          105          110
Tyr Leu Gln Ser Lys Val Val Arg Ala Lys Glu Arg Leu Asp Glu Glu
      115          120          125
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<210> 4715

<211> 2051

<212> DNA

<213> Homo sapiens

<400> 4715

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840

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<210> 4716

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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			20					25				30			
Pro	Ala	Lys	Glu	Phe	Thr	Asn	His	Trp	Trp	Asn	Glu	Leu	Phe	Asn	Lys

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 65 70 75 80
 Leu Leu Tyr Gln Lys Phe Val Lys Met Ala Thr Leu Thr Ser Gly Gly
 85 90 95
 Glu Lys Pro Asn Lys Asp Leu Glu Ser Cys Ser Asp Asp Asp Asn Gln
 100 105 110
 Gly Ser Lys Ser Pro Lys Ile Leu Thr Asp Glu Met Leu Leu Gln Ala
 115 120 125
 Cys Glu Gly Arg Thr Ala His Lys Ala Ala Arg Leu Gly Ile Thr Met
 130 135 140
 Lys Ala Lys Leu Ala Arg Leu Glu Ala Gln Glu Gln Ala Phe Leu Ala
 145 150 155 160
 Arg Leu Lys Gly Gln Asp Pro Gly Ala Pro Gln Leu Gln Ser Glu Ser
 165 170 175
 Lys Pro Pro Lys Lys Lys Lys Lys Lys Arg Arg Gln Lys Glu Glu Glu
 180 185 190
 Glu Ala Thr Ala Ser Glu Arg Asn Asp Ala Asp Glu Lys His Pro Glu
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<210> 4717

<211> 2753

<212> DNA

<213> Homo sapiens

<400> 4717

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<212> PRT

<213> Homo sapiens

<400> 4718

Met	Arg	Ala	Ala	Ser	Pro	Pro	Ala	Ser	Ala	Ser	Asp	Leu	Ile	Glu	Gln
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Gln	Gln	Lys	Arg	Gly	Arg	Arg	Glu	His	Lys	Ala	Leu	Ile	Lys	Gln	Asp
			20					25					30		
Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser
			35				40					45			
Arg	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Asp	Asn	Ser	Leu	Glu	Gly	Glu
			50			55					60				
Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
					70				75					80	
Pro	Gln	Thr	Asp	Arg	Leu	Thr	Cys	Pro	Lys	Gly	Leu	Pro	Trp	Ala	Pro
				85				90						95	
Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser
			100					105					110		
Lys	Phe	Ile	Gly	Tyr	Thr	Leu	Gly	Ser	Asp	Thr	Asn	Thr	Val	Val	Gly
			115				120					125			
Leu	Pro	Arg	Pro	Ile	His	Glu	Ser	Ile	Lys	Thr	Leu	Lys	Gln	His	Lys
			130				135					140			
Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr	Leu
				150						155				160	
Arg	Ser	Pro	Leu	Ser	Gly	Gly	Glu	Glu	Glu	Val	Glu	Gln	Val	Pro	Ala
				165					170					175	
Glu	Thr	Leu	Tyr	Gln	Gly	Leu	Leu	Pro	Ser	Leu	Pro	Gln	Tyr	Met	Ile
			180					185					190		
Ala	Leu	Leu	Lys	Ile	Leu	Leu	Ala	Ala	Ala	Pro	Thr	Ser	Lys	Ala	Lys
			195				200					205			
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met	Pro
			210				215					220			
Thr	Thr	Val	Leu	Gln	Ser	Met	Lys	Leu	Gly	Val	Asp	Val	Asn	Arg	His
				230						235				240	
Lys	Glu	Val	Ile	Val	Lys	Ala	Ile	Ser	Ala	Ala	Leu	Leu	Leu	Leu	Leu

245 250 255

Lys His Phe

<210> 4719
 <211> 589
 <212> DNA
 <213> Homo sapiens

<400> 4719
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 120
 cggctggtgg actatttga agggatccgg aagaattttg atgaggctgc caaggtgttg
 180
 aagtttaact gtgaagagaa ccagcacagt gatagctgct acaaactggg ggcctactat
 240
 gtgactggaa aaggtggtct gaccacaggac ctgaaagctg ccgccagggtg ctttttgatg
 300
 gcgtgtgaga agcctggaaa gaagtcaata gcagcatgtc acaacgttgg cctcctggca
 360
 catgatggac aggttaatga ggatggccag cctgacttgg gaaaggccag ggactactac
 420
 acaagggcct gtgatggtgg ctatacttcc agttgcttca acctcagtc catgttcctg
 480
 cagggtgccc caggctttcc caaggacatg gacctggcat gtaaatactc catgaaagcc
 540
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 589

<210> 4720
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 4720
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 20 25 30
 Glu Lys Asp Pro Asp Gly Cys Tyr Arg Leu Val Asp Tyr Leu Glu Gly
 35 40 45
 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
 50 55 60
 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Arg
 85 90 95
 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
 100 105 110
 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

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      130          135          140
Asp Gly Gly Tyr Thr Ser Ser Cys Phe Asn Leu Ser Ala Met Phe Leu
145          150          155          160
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr
      165          170          175
Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala
      180          185          190
Ser Arg Met Tyr
      195

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<210> 4721
<211> 1385
<212> DNA
<213> Homo sapiens

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120
cgggtgtaggc cgctgcaggc caccatgaac cggcttccgg atgactacga cccctacg
180
gttgaagagc ctacgcacga ggagccggct ttgagcagct ctgaggatga agtggatgtg
240
cttttacatg gaactcctga ccaaaaacga aaactcatca gagaatgtct taccggagaa
300
agtgaatcat ctagtgaaga tgaattttaa aaggagatgg aagctgaatt aaattctacc
360
atgaaaacaa tggaggacaa gttatcctct ctgggaactg gatcttcttc aggaatgga
420
aaagtgtcaa cagctccgac aaggtactac gatgatatat attttgattc tgattccgag
480
gatgaagaca gagcagtaca ggtgaccaag aaaaaaaga agaacaaca caagattcca
540
acaaatgacg aattactgta tgatcctgaa aaagataaca gagatcaggc ctgggttgat
600
gcacagagaa ggggttacc a tgggttggga ccacagagat cagctcaaca acagcctgtt
660
ccaaatagtg atgctgtctt gaattgtcct gcctgcatga ccacactttg ccttgattgc
720
caaaggcatg aatcatacaa aactcaatat agagcaatgt ttgtaatgaa ttgttctatt
780
aacaagagg aggttctaa atataaagcc tcagagaaca ggaagaaaag gcgggtccat
840
aagaagatga ggtctaaccg ggaagatgct gctgagaagg cagagacaga tgtggaagaa
900
atctatcacc cagtcagtgt cactgaatgt tccactgaag tggcagtcta cgacaaggat
960
gaagtctttc attttttcaa tgttttagca agccattcct aaacagccca actggcattt
1020
aattacccaa tactgtatat aaggcaaata tggacagtta ctttctctt gcctgttcatt
1080
atccttcagt gacattgagg aagcagtgtt tctcttttta aaggagaata gttgtcaacc
1140

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ttcattcatc tcttacatct ctcacctctt cctttttttt ttcttttgatt ttccccctta
 1200
 ttgatgggac tgatattcat tctgtttttg atgaacattt ggaaactgtc gggcttttta
 1260
 ttaaagctct gtagaattaa aatgttctgg aattataagc aatctttgtt tctgagtgtt
 1320
 attttttatt tggatatagc tttgatgtaa ttaaaactgga aactctttcc tcaaaaaaaa
 1380
 agctt
 1385

<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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Ser	Asp	Glu	Glu	Pro	Ala	Leu	Ser	Ser	Ser	Glu	Asp	Glu	Val	Asp	Val
		20						25					30		
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys
	35						40					45			
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu
	50				55					60					
Met	Glu	Ala	Glu	Leu	Asn	Ser	Thr	Met	Lys	Thr	Met	Glu	Asp	Lys	Leu
65				70					75					80	
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
			85					90					95		
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
			100				105					110			
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
	115					120					125				
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
	130				135					140					
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly
145				150				155						160	
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp
			165					170					175		
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys
		180						185				190			
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
	195					200					205				
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu
	210				215						220				
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu
225				230					235						240
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
			245					250					255		
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp
		260						265				270			
Glu	Val	Phe	His	Phe	Phe	Asn	Val	Leu	Ala	Ser	His	Ser			
		275					280					285			

<210> 4723
<211> 1213
<212> DNA
<213> Homo sapiens

<400> 4723
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120
ggctggggac tgcacctccc tcctactcat ggtggacagc agtggggact agggaggggc
180
aggagaggtg gctgacgcca ggcagcagca gcagtgatgg ggccacgacg ccacagagca
240
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300
gaacccaccc caggccctcc ctctcccttc cccagacagt ctcttttcgg gctcaacca
360
tttcttccgg caggagactg aggcacacag agaggaggaa gtgggagagg aggacgaggg
420
agggggcagg gn gtggcagcac aaatgaaggc agaggtgaga ggctgggca aggccactcc
480
acccccacac ccacccaga gaggggcgag gaagccacac catcacgcag catgtcgggg
540
ggacaaggcg ggggtttaagg ctgagggggc cgggggcagg cgggcctcgg gcctcagtca
600
aagccgtgcc cagtgcgtgt gctctgagtc gtattccagc tcggcgccca cacacttgac
660
accatccagc agcatggggc tgccgtgggt ccggtccatg acgcgggcct gcaccgtcac
720
gcgcacacag gtgccagtgc caccctcgca ggctagcagt atctcctctt tgaggacgcc
780
ctctttgtgc gccagtgact cacacttgac actataacct tcagggacgg gcaccacgct
840
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900
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960
gaccagaaag ctgctgtcac tctcctgggt gaccatgacc accagatcat gcagcttctc
1020
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1080
ccggactctg ggtctgttgc ccttgttggc tgcagccatg gacgccctcc ctgccacgca
1140
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1200
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1213

<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

Met Gly Pro Arg Arg His Arg Ala Ser Ser Ile Leu Pro Gln Thr Leu
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 Val Gly Val Pro Val Gly Trp Gly Gly Glu Trp Gly Glu Pro Thr Pro
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 Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
 35 40 45
 Phe Leu Pro Ala Gly Asp
 50

<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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 120
 tgcgcatgtg cactgtgtga tatgcatatg tgcacaggtg cctgtgcctg tgtgaacaca
 180
 tgtttctcag tgtgtacctg cntctcttgc ccatgcntgt acgtgcacac gtgcctctgt
 240
 atgcatgcat gtatagctgt gtgccatcac cctcacgtga gaatacatat gcgcttgtgc
 300
 cttcacctct gcctgcatgc tagtgtgtgc ctgcgtgcat ggggtgtgcat ctgtgcctgc
 360
 acgcgt
 366

<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
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 Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
 20 25 30
 His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
 35 40 45
 His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
 50 55 60
 Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
 65 70 75 80
 Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
 85 90 95
 Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
 100 105 110
 Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
 115 120

<210> 4727
<211> 2031
<212> DNA
<213> Homo sapiens

<400> 4727
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120
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180
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240
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300
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360
gagactcgga gttcggcggg ggtatctgtc aggacatctg ggtgttagcc aactcggatc
420
ccacgcttct tgatttcac caaagccaag tggctgatgc ccacagacat ggtgctgatg
480
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660
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720
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780
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840
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900
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960
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1260
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1440

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 1860
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 1920
 acccttctga atttctttac taataaaggc tatagggtct cccctttaaa gaacagcttt
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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

Met Arg Pro Val Arg Leu Met Lys Val Phe Val Thr Arg Arg Ile Pro
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 20 25 30
 Gln Trp Asp Ser Asp Glu Pro Ile Pro Ala Lys Glu Leu Glu Arg Gly
 35 40 45
 Val Ala Gly Ala His Gly Leu Leu Cys Leu Leu Ser Asp His Val Asp
 50 55 60
 Lys Arg Ile Leu Asp Ala Ala Gly Ala Asn Leu Lys Val Ile Ser Thr
 65 70 75 80
 Met Ser Val Gly Ile Asp His Leu Ala Leu Asp Glu Ile Lys Lys Arg
 85 90 95
 Gly Ile Arg Val Gly Tyr Thr Pro Asp Val Leu Thr Asp Thr Ala
 100 105 110
 Glu Leu Ala Val Ser Leu Leu Leu Thr Thr Cys Arg Arg Leu Pro Glu
 115 120 125
 Ala Ile Glu Glu Val Lys Asn Gly Gly Trp Thr Ser Trp Lys Pro Leu
 130 135 140
 Trp Leu Cys Gly Tyr Gly Leu Thr Gln Ser Thr Val Gly Ile Ile Gly
 145 150 155 160
 Leu Gly Arg Ile Gly Gln Ala Ile Ala Arg Arg Leu Lys Pro Phe Gly
 165 170 175
 Val Gln Arg Phe Leu Tyr Thr Gly Arg Gln Pro Arg Pro Glu Glu Ala
 180 185 190
 Ala Glu Phe Gln Ala Glu Phe Val Ser Thr Pro Glu Leu Ala Ala Gln
 195 200 205
 Ser Asp Phe Ile Val Val Ala Cys Ser Leu Thr Pro Ala Thr Glu Gly

210 215 220
 Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe
 225 230 235 240
 Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln
 245 250 255
 Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser
 260 265 270
 Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys
 275 280 285
 Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr
 290 295 300
 Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu
 305 310 315 320
 Pro Met Pro Ser Glu Leu Lys Leu
 325

<210> 4729

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4729

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 180
 gaaaccact gaagacgtct gcgtgagaat agagaccacc gagggcgact cgcgggcccgc
 240
 tgcacccacc gccaggaca aaaggagccc agcgtacta gctgcacccg attcctccca
 300
 gtgcttagca tgaagaaggc cgaaatggga cgattcagta tttcccccga tgaagacagc
 360
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 420
 aaaagccatt atgcagatgt agatcctgaa aaccagaact ttttacttga atcgaatttg
 480
 gggaagaaga agtatgaac agaatttcat ccagggtacta cttccttttg aatgtcagta
 540
 tttaatctga gcaatcgat tgtgggcagt ggaatccttg ggcttttcta tgccatggct
 600
 aatactgaa ttgctctttt tataattctc ttgacatttg tgtcaatatt ttcctgtat
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 720
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 753

<210> 4730

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4730
 Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
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 20 25 30
 Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
 35 40 45
 Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Tyr Glu Thr
 50 55 60
 Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
 65 70 75 80
 Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
 85 90 95
 Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
 100 105 110
 Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
 115 120 125
 Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
 130 135 140
 Val Gly Lys Leu
 145

<210> 4731
 <211> 2417
 <212> DNA
 <213> Homo sapiens

<400> 4731
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 120
 ttggaagaca gctgaggaaa aaggcgccaa taagacaaac tcacagatgg gatttatctc
 180
 cctcttgctt tttttttttt tttttgccc tggtaaaagt cagaacctgg gatgaccaga
 240
 aagtaacagg acagatttct cccagcaaat cagtctccat aaccaaatga atattgttct
 300
 ccaaggagtc aagctataga ctcaaatga caacgtggcc atggctcaaa acactctctg
 360
 aaattacaaa attgctttct gagccaattt aaaagtcaca tgattgaatc caagctattt
 420
 tacttttaaa ggtccttttg ctttgcacct gagacctcgc ttggccacag acgtcattcg
 480
 ctggactccc tgggcactaa atgagtgtct agcatcctta aggctgctca acacacagcc
 540
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 600
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 660
 gcaccttcct tccatcagag tctgctgccc ggggtgggctg ggaaggaggg agatacaaa
 720
 aagaaagtag gcatgatcac tgggtcgggt cccaagccac cctcacctc caagaaggca
 780

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840
ggcagcactg gtggaaggga ggcaaggagg ccgccagtgc caaggaggag agggggcaca
900
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960
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1020
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1080
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1140
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1200
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1260
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1320
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1380
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1440
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1500
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1560
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1620
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1680
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1740
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1800
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1860
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1920
aacagctctg cttatcgaca tgcacgcagc ccagggtccc ctatagctcc ggaggctcca
1980
gaaacaccaa gggccaaaac gccagcagcc actaaccaa acccagctct tcctcctgtc
2040
atttcctcat cctgacgtc acgggtgcaa ggactctcct tggccttct catcctgctt
2100
tcaggcgagca aacagaaatg gggaaatccc tgggtggggc aggagacaga aaggaacctc
2160
cagaacctcc ctgggtctct cccggccacc caaataaaag aaaactttaa tcagtaaagg
2220
cttctgaata catcgtaaaa gaaaacaaag catttctgag gcgtcctttc aataaccgga
2280
ggaaggcggc gtcaggaggg tgcttctctg ggtcagagca gagagtttcc agacgtcaa
2340
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2400

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2417

<210> 4732
<211> 129
<212> PRT
<213> Homo sapiens

<400> 4732
Met Ser Ile Ser Arg Ala Val Leu Gly Glu Lys Glu Gly Gly Leu Gly
1 5 10 15
Ser Val Ala Pro Cys Gln Pro Ala Leu Arg Glu Asp Arg Val Ser His
20 25 30
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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120
tccattccca ataactgaa gctgcagtgt gtatcctgga acaaggaaca agggttcata
180
gcatgcggtg gtgaagatgg attactgaaa gttttgaaat tagagacgca gacagatgat
240
gcaaaattga ggggccttgc agccccagt aacctttcta tgaatcagac tcttgaaggt
300
catagtgggt ctgttcaagt tgtaacatgg aatgagcagt atcagaagtt gactaccagt
360
gatgaaaaac ggcttatcat tgtgtggatg ttatataaag gctcttggat tgaggagatg
420
atcaacaatc gaaataaatc agttgttcgc agtatgagct ggaatgctga cggacagaag
480
atctgcattg tatatgaaga tggggctgtg atagttgggt cagtggatgg caatcgtatt
540
tgg
543

<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 4734
 Xaa Pro Glu Leu Leu Val Leu Pro Ile Gly Asp Val Glu Pro Leu Leu
 1 5 10 15
 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met
 20 25 30
 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu
 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp
 165 170 175
 Gly Asn Arg Ile Trp
 180

<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 4735
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 gatgcacgag aacccggagt gggagaaggc ccgtcaggcc ctggccagca tcagcaagtc
 120
 aggagctgcc ggcggctctg ccaagtccag cagcaatggg cctgtggcca gtgcacagta
 180
 cgtgtcccag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca
 240
 ggacaactat gcctaccctt acagctacta ctatcccatg ccccaggcc ccggcatgga
 300

<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736
 Met Val Ala Gly Ala Gly Arg Glu Asn Gly Met Glu Thr Pro Met His
 1 5 10 15
 Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
 20 25 30
 Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
 35 40 45
 Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
 50 55 60
 Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
 65 70 75 80
 Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
 85 90

<210> 4737
 <211> 2602
 <212> DNA
 <213> Homo sapiens

<400> 4737
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 aataatgtgg agatgtttcc accttcagggt tccactgggc tgattcccc cteccacttt
 120
 caagctcggc ccctttcaac tctgccaga atggctccca cctggctctc agacattccc
 180
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 240
 caagtgaacca tgtgggaacg ggatgtttcc agtgacaggc aggagccagg gcggagaggc
 300
 aggtcctggg ggctggaggg gtcacaggcc ctgagccagc aggctgaggt gatcgttcgg
 360
 cagctgcaag agctgcggcg gctggaggag gaggtccggc tcctgcggga gacctcgctg
 420
 cagcagaaga tgaggctaga ggcccaggcc atggagctag aggctctggc acgggcgagg
 480
 aaggccggcc gagctgaggc tgagggcctg cgtgctgctt tggctggggc tgaggttgct
 540
 cggaagaact tgggaagagg gaggcagcgg gagctggaag aggttcagag gctgcaccaa
 600
 gagcagctgt cctctttgac acaggctcac gaggaggctc tttccagttt gaccagcaag
 660
 gctgagggtt tggagaagtc tctgagtagt ctggaaacca gaagagcagg ggaagccaag
 720
 gagctggcgg aggtcagag ggaggccgag ctgcttcgga agcagctgag caagaccag
 780
 gaagacttgg aggtcagggt gaccctgggt gagaatctaa gaaaatatgt tggggaacaa
 840
 gtcccttctg aggtccacag ccagacatgg gaactggagc gacagaagct tctggaaacc
 900
 atgcagctct tgcaggagga ccgggacagc ctgcatgcca ccgaggagct gctgcagggt
 960
 cgggtgcaga gcctcacaca catcctcgcc ctgcaggagg aggagctgac caggaagggt
 1020

caaccttcag attccctgga gcctgagttt accaggaagt gccagtcctt gctgaaccgc
1080
tggcgggaga aggtgtttgc cctcatggtg cagctaaagg cccaggagct ggaacacagt
1140
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1200
agccaggagc aggccatcct gcagcgatcc ctgcaggaca aagccgcaga ggtggaggtg
1260
gagcgtatgg gtgccaaggg cctgcagttg gagctgagcc gtgctcagga ggccaggcgt
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tggtggcagc agcagacagc ctccagccag gagcagctga ggcttgttgt caatgctgtc
1380
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1440
cttcccagcc tcaacaaccg actcagctat gctgtccgca aggtccacac cattcggggc
1500
ctgattgttc gaaagcttgc ccttgctcag ctgcgccagg agagctgtcc cctaccacca
1560
ccggtcacag atgtgagcct tgagttgcag cagttgcggg aagaacggaa ccgcctggat
1620
gcagaactgc agctgagtcg ccgcctcacc cagcaggagg tgggcccggc tcgggagcaa
1680
ggggaggcag agcggcagca gctgagcaag gtggcccagc agctggagca ggagctgcag
1740
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1800
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1860
tacgggcaag ccctgcaaga aaaggtggct gaagtggaaa ctccggtgag ggagcaactc
1920
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1980
ttgcgccaga ttacgcgagc agccgcccag gaaaaggagc ggagccagga actcaggcgt
2040
ctgcaggagg aggcccgaa ggaggagggg cagcgactgg cccggcgctt gcaggagcta
2100
gagagggata agaacctcat gctggccacc ttgcagcagg aaggtctcct cttccgttac
2160
aagcagcagc gactgttgac agttcttctt tccctactgg ataagaagaa atctgtgtg
2220
tccagcccca ggcctccaga gtgttcagca tctgcacctg tagcagcagc agtggccacc
2280
aggaggtcca taaaagggtc cctctctgtc ctgctcgatg acctgcagga cctgagtgaa
2340
gccatttcca aagaggaagc tgtttgtcaa ggagacaacc ttgacagatg ctccagctcc
2400
aatccccaga tgagcagcta agcagctgac agttggaggg aaagccagcc tgggggctgg
2460
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2520
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2580
aaaaaaaaa aaaaaaaaaa aa
2602

<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738
 Met Ala Pro Thr Trp Leu Ser Asp Ile Pro Leu Val Gln Pro Pro Gly
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 His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val
 20 25 30
 Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg
 35 40 45
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50 55 60
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65 70 75 80
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85 90 95
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
 100 105 110
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
 115 120 125
 Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu
 130 135 140
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
 145 150 155 160
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
 165 170 175
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
 180 185 190
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
 195 200 205
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
 210 215 220
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
 225 230 235 240
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
 245 250 255
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
 260 265 270
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
 275 280 285
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
 290 295 300
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
 305 310 315 320
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
 325 330 335
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
 340 345 350
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
 355 360 365
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

370 375 380
 Ala Gln Glu Ala Arg Arg Trp Trp Gln Gln Gln Thr Ala Ser Ala Glu
 385 390 395 400
 Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp
 405 410 415
 Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
 420 425 430
 Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
 435 440 445
 Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
 450 455 460
 Ser Cys Pro Leu Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
 465 470 475 480
 Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
 485 490 495
 Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
 500 505 510
 Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
 515 520 525
 Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
 530 535 540
 Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
 545 550 555 560
 Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
 565 570 575
 Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
 580 585 590
 Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
 595 600 605
 Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
 610 615 620
 Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
 625 630 635 640
 Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
 645 650 655
 Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
 660 665 670
 Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
 675 680 685
 Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
 690 695 700
 Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
 705 710 715 720
 Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
 725 730 735
 Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
 740 745 750
 Gln Met Ser Ser
 755

<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4739
 gtgcacatgg ggtgcattag gcttgatttg tactctgcag actatggggg aagctgagga
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 ggaagacttg accagtcttg gtgatgagaa ggccttcacc ctatgaacac aaccaagtct
 120
 tagccctctc tcctgctcct ttaaactctg aacttctagg atgggagaat gggaactttt
 180
 gcaggttgag attcatagtg aaatcgggtc aagaagtgat cagatgcaaa gcacagggca
 240
 gttcattact ataccatggc tgaggctctc ctgggcacca ggcctggggc tcagcacttg
 300
 gctcagtctg caccttggac cctgccagag ccctccacag caggtgctct caggcaaggc
 360
 tgtgtgttgc tggccagacg cttctgacc agcgtgcttt cttgaccaca gatcccttgg
 420
 ccaagcagga gggaaccatt agcagcctga ggagctggct ggctggggagc ctcggggacc
 480
 gcccagcctt gctcccagct caccacaag atgtggacag ctcttgtgct catttggatt
 540
 ttctccttgt ccttatctga aagccatgcg gcattcaacg atccacgtaa gtgagaaagc
 600
 tgtgtgactg ctggatgggc ccacgggtggc cacaagcat gctgagccct tgaaagcagc
 660
 atctgcaaac ccaggccaac gcgt
 684

<210> 4740
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 4740
 Met Leu Leu Ser Arg Ala Gln His Ala Leu Trp Pro Pro Trp Ala His
 1 5 10 15
 Pro Ala Val Thr Gln Leu Ser His Leu Arg Gly Ser Leu Asp Ala Ala
 20 25 30
 Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala
 35 40 45
 Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu
 50 55 60
 Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu
 65 70 75 80
 Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu
 85 90 95
 Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser
 100 105 110
 Gly Arg Val Gln Gly Ala Asp
 115

<210> 4741
 <211> 411
 <212> DNA
 <213> Homo sapiens

<400> 4741
aaatttactt ctctcaggtc aacaggtgtt tttctttctt tttttttttt tttttccctt
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ttttttctta aaaaaaaaaa aggggttttt ctttgcccc cccgttcccc ccccttcccc
120
ttccgaaaaa aagaggggaa ttttttaaaa aacccgaaag gggggaagg ggggggtata
180
aaagataaaa tttggttttt tgggggggaa aatttggaca cccacccctc ggggtttttt
240
tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa atttttctt taatttcaa
300
ataaaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa
360
ttttcccaag ggggaccact aaaatttacc ctttttttgg ggttttgggg g
411

<210> 4742
<211> 109
<212> PRT
<213> Homo sapiens

<400> 4742
Met Ile Leu Glu Pro His Phe Phe Phe Ile Trp Lys Leu Lys Lys Lys
1 5 10 15
Phe Phe Leu Gly Pro Pro Phe Lys Ile Phe Trp Gly Gly Glu Lys Lys
20 25 30
Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu
35 40 45
Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
50 55 60
Pro Ser Phe Phe Arg Lys Gly Lys Gly Glu Arg Gly Gly Gln Arg
65 70 75 80
Lys Thr Pro Phe Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys
85 90 95
Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn
100 105

<210> 4743
<211> 473
<212> DNA
<213> Homo sapiens

<400> 4743
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caaccggccc cacaaattct agcagtgcca agaagaagga taaaagagtt caaggtggaa
120
gagtgattga gtccccgtat ctgcagtatg aaaagaagac aacccaaaag gtcctgcag
180
gagatgggtc acagaccga ggaagatgt ctgaaggtgg aaggaaatcc agcctgctcc
240
agaaaagcaa agcagatagc agtggggctg gaaaggtga cctgcagtcc acgttgctgg
300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt
 420
 ctgccccctcg gaaaaagagc ccggatttat ctgaagcgaa tggaatgatg gag
 473

<210> 4744
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4744
 Met Ala Asp Ser Ser Gly Arg Gly Ala Gly Lys Pro Ala Thr Gly Pro
 1 5 10 15
 Thr Asn Ser Ser Ser Ala Lys Lys Lys Asp Lys Arg Val Gln Gly Gly
 20 25 30
 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln
 35 40 45
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu
 50 55 60
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser
 65 70 75 80
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly
 85 90 95
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile
 100 105 110
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu
 115 120 125
 Ser Thr Ser Phe Ser Ala Pro Arg Lys Lys Ser Pro Asp Leu Ser Glu
 130 135 140
 Ala Asn Gly Met Met Glu
 145 150

<210> 4745
 <211> 666
 <212> DNA
 <213> Homo sapiens

<400> 4745
 gcatggagag aatatgataa gttagaatac gatgtaactg ttaccaggaa ccagatgcaa
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 gagcagctgg atcaccttgg tgaagttcag acggaatcag caggaattca gcgtgcacag
 120
 attcagaaag aactttggcg aattcaggat gtcattggaag ggctgagtaa acataagcag
 180
 caaagaggta ctacagaaat aggtatgata ggatcaaagc ctttctcaac agttaagtac
 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
 gaagttgatg aatctaattg agaagaaaaa tcagaacctg tttcagagat agaaacttca
 360
 gttgttaaag gttcccactt tcctgttgga gtatccctc caagagcaaa atcaccaaca
 420

ccggaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
 480
 ctaagaacgg aaagaccaag aagtgcagtg gaacagctct gtttggtga aagtactcga
 540
 ccaaggatga ctgtggaaga gcaaatggaa agaataagaa gatatcaaca agcgtgcctg
 600
 agggagaaga aaaaagggtt aaatgttatc ggtgcttcag accagtcacc cttacaaagc
 660
 ccttaa
 666

<210> 4746
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 4746
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 Asn Gln Met Gln Glu Gln Leu Asp His Leu Gly Glu Val Gln Thr Glu
 20 25 30
 Ser Ala Gly Ile Gln Arg Ala Gln Ile Gln Lys Glu Leu Trp Arg Ile
 35 40 45
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
 50 55 60
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
 65 70 75 80
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
 100 105 110
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
 115 120 125
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
 145 150 155 160
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala
 165 170 175
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile
 180 185 190
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<212> PRT

<213> Homo sapiens

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 Cys Glu Gln Asn Leu Leu Ser Arg Pro Asp Gly Ser Ala Ser Phe Leu
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 Gln Gly Asp Thr Ser Val Leu Ala Gly Val Tyr Gly Pro Ala Glu Val
 65 70 75 80
 Lys Val Ser Lys Glu Ile Phe Asn Lys Ala Thr Leu Glu Val Ile Leu

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 Arg Pro Lys Ile Gly Leu Pro Ala Gly Val Ser Gly Trp Gln Ser Gly
 100 105 110
 Leu Ala Phe Phe Pro Leu Glu Ser Ser Ile Ile Pro Ala Gly Val Ala
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 Glu Lys Ser Arg Glu Arg Leu Ile Arg Asn Thr Cys Glu Ala Val Val
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<212> DNA

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<211> 335

<212> PRT

<213> Homo sapiens

<400> 4752

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Ile Thr Pro Pro Ala Ala Pro Lys Pro Lys Arg Glu Glu Asn Pro Gln
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<212> DNA

<213> Homo sapiens

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<210> 4754

<211> 748

<212> PRT

<213> Homo sapiens

<400> 4754

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 Asp His Leu Thr Asn Asn Arg Asn Asp Leu Ile Ser Lys Glu Glu Gln
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Pro Ile Glu Glu Lys Thr Val Glu Val Asn Asp Arg Lys Ala Glu Phe
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Glu Glu Leu Ser Ala Gly Glu Ser Ile Thr Lys Ser Gln Pro Val Lys
610 615 620
Ser Val Ser Thr Gly Met Lys Ser His Ser Thr Lys Ser Pro Ala Arg
625 630 635 640
Thr Gln Ser Pro Gly Lys Cys Gly Lys Asn Gly Asp Lys Asp Pro Asp
645 650 655
Leu Lys Glu Pro Ser Asn Arg Leu Pro Lys Val Tyr Lys Trp Ser Phe
660 665 670
Gln Met Ser Asp Leu Glu Asn Met Thr Ser Ala Glu Arg Ile Thr Ile
675 680 685
Leu Gln Glu Lys Leu Gln Glu Asn Gln Lys His Tyr Leu Ser Leu Lys
690 695 700
Ser Glu Val Ala Ser Ile Asp Arg Arg Arg Lys Arg Leu Lys Lys
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<210> 4755

<211> 2093

<212> DNA

<213> Homo sapiens

<400> 4755

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<210> 4756
 <211> 188
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Glu Asp Gly Ser Pro Ala Lys Gly Glu Pro Ser Gln Ala Trp Arg
 50 55 60
 Glu Gln Arg Arg Pro Ser Thr Ser Ser Ala Ser Gly Gln Trp Ser Pro
 65 70 75 80
 Thr Pro Glu Trp Val Leu Ser Trp Lys Ser Lys Leu Pro Leu Gln Thr
 85 90 95
 Ile Met Arg Leu Leu Gln Val Leu Val Pro Gln Val Glu Lys Ile Cys
 100 105 110
 Ile Asp Lys Gly Leu Thr Asp Glu Ser Glu Ile Leu Arg Phe Leu Gln
 115 120 125
 His Gly Thr Leu Val Gly Leu Leu Pro Val Pro His Pro Ile Leu Ile
 130 135 140
 Arg Lys Tyr Gln Ala Asn Ser Gly Thr Ala Met Trp Phe Arg Thr Tyr
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<210> 4757
 <211> 272
 <212> DNA
 <213> Homo sapiens

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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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			20				25					30			
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
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Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50					55				60					
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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Val	Ser	Lys	Asp	Lys	Ala	Ile	His	Val	Leu						
				85					90						

<210> 4759

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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<210> 4760

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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		20					25						30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
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Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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			20					25					30		
Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile
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Leu	Asp	Pro	Arg	Leu	Val	Met	Ala	Tyr	Glu	Glu	Lys	Glu	Glu	Arg	Asp
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Arg	Ala	Ser	Gly	Tyr	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Lys	Arg	Leu	Leu
65				70					75					80	
Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys
			85					90				95			
Gly	Lys	Glu	Lys	Leu	Cys	Phe	Ser	Leu	Thr	Cys	Pro	Leu	Gly	Ser	Gly
		100						105				110			
Ser	Pro	Glu	Gly	Val	Val	Lys	Ala	Gly	Ala	Pro	Glu	Leu	Val	Asp	Lys
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Ala	His	Lys	Tyr	Leu	Arg	Leu	Ser	Arg	Lys	Lys	Phe	Pro	Pro	Arg	Gly
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Pro	Asn	Leu	Glu	Ser	His	Ser	His	Arg	Arg	Glu	Leu	Phe	Leu	Gln	Glu
			165					170						175	
Pro	Pro	Ala	Pro	Asp	Val	Leu	Gln	Ala	Ala	Gly	Glu	Trp	Glu	Pro	Ala
		180					185					190			
Ala	Gln	Pro	Pro	Glu	Glu	Glu	Ala	Asp	Ala	Asp	Leu	Ala	Glu	Gly	Pro
		195					200					205			
Pro	Pro	Trp	Thr	Pro	Ala	Leu	Pro	Ser	Ser	Glu	Val	Thr	Val	Thr	Asp
		210				215					220				
Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala
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Glu	Gly	Phe	Phe	Arg	Asp	Arg	Ser	Gly	Lys	Phe					
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<210> 4763
<211> 2158
<212> DNA
<213> Homo sapiens

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1320
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1380
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1440

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 1980
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 2040
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<210> 4764

<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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				20					25					30	
Leu	Lys	Lys	Arg	Glu	Ile	Lys	Leu	Ser	Asp	Asp	Phe	Asp	Ser	Pro	Val
				35					40					45	
Lys	Gly	Pro	Leu	Cys	Lys	Ser	Val	Thr	Pro	Thr	Lys	Glu	Phe	Leu	Lys
				50					55					60	
Asp	Glu	Ile	Lys	Gln	Glu	Glu	Thr	Cys	Lys	Arg	Ile	Ser	Thr	Ile	
				65					70					75	
Thr	Ala	Leu	Gly	His	Glu	Gly	Lys	Gln	Leu	Val	Asn	Gly	Glu	Val	Ser
				85					90					95	
Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
				100					105					110	
Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
				115					120					125	
Ile	Ile	Thr	Glu	Gly	Asn	Gly	Thr	Glu	Ser	Leu	Asn	Ser	Val	Ile	Thr
				130					135					140	
Ser	Met	Lys	Thr	Gly	Glu	Leu	Glu	Lys	Glu	Thr	Ala	Pro	Leu	Arg	Lys
				145					150					155	
Asp	Ala	Asp	Ser	Ser	Ile	Ser	Val	Leu	Glu	Ile	His	Ser	Gln	Lys	Ala
				165					170					175	
Gln	Ile	Glu	Glu	Pro	Asp	Pro	Pro	Glu	Met	Glu	Thr	Ser	Leu	Asp	Ser

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      195      200      205
Glu Ser Cys Thr Met Lys Gly Glu Glu Lys Ser Pro Lys Thr Lys Lys
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Asp Lys Arg Pro Pro Ile Leu Glu Cys Leu Glu Lys Leu Glu Lys Ser
225      230      235      240
Lys Lys Thr Phe Leu Asp Lys Asp Ala Gln Arg Leu Ser Pro Ile Pro
      245      250      255
Glu Glu Val Pro Lys Ser Thr Leu Glu Ser Glu Lys Pro Gly Ser Pro
      260      265      270
Glu Ala Ala Glu Thr Ser Pro Pro Ser Asn Ile Ile Asp His Cys Glu
      275      280      285
Lys Leu Ala Ser Glu Lys Glu Val Val Glu Cys Gln Ser Thr Ser Thr
      290      295      300
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305      310      315      320
Asp Ser Glu Phe Thr Lys Val Glu Met Asp Asn Leu Asp Asn Ala Gln
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Thr Ser Gly Ile Glu Glu Pro Ser Glu Thr Lys Gly Ser Met Gln Lys
      340      345      350
Ser Lys Phe Lys Tyr Lys Leu Val Pro Glu Glu Glu Thr Thr Ala Ser
      355      360      365
Glu Asn Thr Glu Ile Thr Ser Glu Arg Gln Lys Glu Gly Ile Lys Leu
      370      375      380
Thr Ile Arg Ile Ser Ser Arg Lys Lys Lys Pro Asp Ser Pro Pro Lys
      385      390      395      400
Val Leu Glu Pro Glu Asn Lys Gln Glu Lys Thr Glu Lys Glu Glu Glu
      405      410      415
Lys Thr Asn Val Gly Arg Thr Leu Arg Arg Ser Pro Arg Ile Ser Arg
      420      425      430
Pro Thr Ala Lys Val Ala Glu Ile Arg Asp Gln Lys Ala Asp Lys Lys
      435      440      445
Arg Gly Glu Gly Glu Asp Glu Val Glu Glu Glu Ser Thr Ala Leu Gln
      450      455      460
Lys Thr Asp Lys Lys Glu Ile Leu Lys Lys Ser Glu Lys Asp Thr Asn
      465      470      475      480
Ser Lys Val Ser Lys Val Lys Pro Xaa Lys Ala Lys Phe Asp Gly Leu
      485      490      495
Val Leu Gly His Val Ala Asp Gly Asn Ile Pro Ala Met Met Lys Val
      500      505      510
Lys Gly Leu Ala Val Lys Asn His Leu Gln Leu Gln Lys Arg Arg Lys
      515      520      525
Lys Arg Lys Val Lys Lys Pro Ser Xaa Ala Asp Asp Asp Glu Pro Cys
      530      535      540
Lys Lys Cys Gly Leu Pro Asn His Pro Glu Leu Ile Leu Leu Cys Asp
      545      550      555      560
Ser Cys Asp Ser Gly Tyr His Thr Ala Cys Leu Arg Pro Pro Leu Met
      565      570      575
Ile Ile Pro Asp Gly Glu Trp Phe Cys Pro Pro Cys Gln His Lys Leu
      580      585      590
Leu Cys Glu Lys Leu Glu Glu Gln Leu Gln Asp Leu Asp Val Ala Leu
      595      600      605
Lys Lys Lys Glu Arg Ala Glu Arg Arg Lys Glu Arg Leu Val Tyr Val

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610 615 620
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 625 630 635 640
 Glu Asp Gln Glu Glu Lys Lys Lys Asp Ser Lys Lys Ser Lys Ala Asn
 645 650 655
 Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg
 660 665 670
 Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile
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<210> 4765

<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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 660
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 1680
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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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 35 40 45
 Pro Val Ala Leu Thr Leu Leu Thr Leu Cys Leu Val Leu Leu Ile Gly
 50 55 60
 Leu Ala Ala Leu Gly Leu Leu Phe Phe Gln Tyr Tyr Gln Leu Ser Asn
 65 70 75 80
 Thr Gly Gln Asp Thr Ile Ser Gln Met Glu Glu Arg Leu Gly Asn Thr
 85 90 95
 Ser Gln Glu Leu Gln Ser Leu Gln Val Gln Asn Ile Lys Leu Ala Gly
 100 105 110
 Ser Leu Gln His Val Ala Glu Lys Leu Cys Arg Glu Leu Tyr Asn Lys
 115 120 125
 Ala Gly Ala His Arg Cys Ser Pro Cys Thr Glu Gln Trp Lys Trp His
 130 135 140
 Gly Asp Asn Cys Tyr Gln Phe Tyr Lys Asp Ser Lys Ser Trp Glu Asp
 145 150 155 160
 Cys Lys Tyr Phe Cys Leu Ser Glu Asn Ser Thr Met Leu Lys Ile Asn
 165 170 175
 Lys Gln Glu Asp Leu Glu Phe Ala Ala Ser Gln Ser Tyr Ser Glu Phe

			180					185					190		
Phe	Tyr	Ser	Tyr	Trp	Thr	Gly	Leu	Leu	Arg	Pro	Asp	Ser	Gly	Lys	Ala
		195					200					205			
Trp	Leu	Trp	Met	Asp	Gly	Thr	Pro	Phe	Thr	Ser	Glu	Leu	Phe	His	Ile
	210					215					220				
Ile	Ile	Asp	Val	Thr	Ser	Pro	Arg	Ser	Arg	Asp	Cys	Val	Ala	Ile	Leu
225					230					235					240
Asn	Gly	Met	Ile	Phe	Ser	Lys	Asp	Cys	Lys	Glu	Leu	Lys	Arg	Cys	Val
			245						250					255	
Cys	Glu	Arg	Arg	Ala	Gly	Met	Val	Lys	Pro	Glu	Ser	Leu	His	Val	Pro
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Pro	Glu	Thr	Leu	Gly	Glu	Gly	Asp								
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<210> 4767
<211> 1380
<212> DNA
<213> Homo sapiens
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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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		20						25					30		
Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu
		35				40						45			
Gly	Glu	Asp	Ser	Ala	Gly	Ser	Ala	Leu	Glu	Glu	Asp	Asp	Glu	Asp	Asp
		50				55					60				
Glu	Gly	Asp	Gly	Glu	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu	
65				70					75					80	
Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile
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His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu
			100					105						110	
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala
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Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val
		130				135					140				
Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met
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Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys
				165						170				175	
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val
			180					185						190	
Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr
		195						200					205		
Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg
		210				215						220			
Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln
225					230					235					240
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met
				245						250				255	
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu
				260					265					270	
Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly

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290      295      300
Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu
305      310      315      320
Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys
      325      330      335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu
      340      345      350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu
      355      360      365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val
      370      375      380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg
385      390      395      400
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu
      405      410      415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu
      420      425      430
Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile
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Ser Glu Leu Glu Gly Asn Leu Gln Thr Leu Arg Asn
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<210> 4769
<211> 1533
<212> DNA
<213> Homo sapiens

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480
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660
cgggagtgaa gagaaggggt ttctaagatg gagaagtggg ggcgggtgtg gatccagtgg
720

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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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 Phe Leu Lys Ala Gln Val Leu Pro Pro Leu Arg Asp Val Arg Thr Arg
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 Pro Glu Val Gly Asp Leu Leu Arg Asn Lys Leu Val Arg Leu Met Thr
 65 70 75 80
 His Leu Asp Thr Asp Val Lys Arg Val Ala Ala Glu Phe Leu Phe Val
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 Leu Cys Ser Glu Ser Val Pro Arg Phe Ile Lys Tyr Thr Gly Tyr Gly
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 Asn Ala Ala Gly Leu Leu Ala Ala Arg Gly Leu Met Ala Gly Gly Arg
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 Lys Glu Ala Lys Ala Ser Ile Asn Pro Val Thr Gly Arg Val Glu Glu

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1080

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 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Gly Pro
 130 135 140
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys
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 Asp Trp Asp Lys Glu Ser Asp Gly Pro Asp Asp Ser Arg Pro Glu Ser
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 Ala Ser Asp Ser Asp Thr
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<210> 4773
 <211> 319
 <212> DNA
 <213> Homo sapiens

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<210> 4774
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 4774

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 Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
 35 40 45
 Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
 50 55 60
 Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
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 Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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 35 40 45
 Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
 50 55 60
 Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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<210> 4778

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4778

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 35 40 45
 Glu Ser Arg Tyr Leu Arg Ala Val Leu Ala Asn Glu Thr Gly Leu Ala
 50 55 60
 Arg Leu Leu Ser Arg Leu Ser Gly Val Gly Leu Arg Leu Thr Thr Ser
 65 70 75 80
 Leu Phe Arg Asp Ser Pro Ala Gly Asp His Asp Tyr Ala Leu Pro Val
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 Gly Lys Gln Lys Gln Asp Leu Leu Glu Glu Asp Asp Ser Ala Gly Gly
 100 105 110
 Val Cys Leu His Val Asp Lys Asp Lys Val Ser Val Glu Phe Cys Ser

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<210> 4779

<211> 4467

<212> DNA

<213> Homo sapiens

<400> 4779

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<210> 4780

<211> 1241
<212> PRT
<213> Homo sapiens

<400> 4780

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35 40 45
Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Gln Gln Pro Gln Val Leu
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Ser Ser Glu Gly Gly Gln Leu Arg His Asn Pro Leu Asp Ile Gln Met
65 70 75 80
Leu Ser Arg Gly Leu His Glu Gln Ile Phe Gly Gln Gly Gly Glu Met
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Pro Gly Glu Ala Ala Val Arg Arg Ser Val Glu His Leu Gln Lys His
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Gly Leu Trp Gly Gln Pro Ala Val Pro Leu Pro Asp Val Glu Leu Arg
115 120 125
Leu Pro Pro Leu Tyr Gly Asp Asn Leu Asp Gln His Phe Arg Leu Leu
130 135 140
Ala Gln Lys Gln Ser Leu Pro Tyr Leu Glu Ala Ala Asn Leu Leu Leu
145 150 155 160
Gln Ala Gln Leu Pro Pro Lys Pro Pro Ala Trp Ala Trp Ala Glu Gly
165 170 175
Trp Thr Arg Tyr Gly Pro Glu Gly Glu Ala Val Pro Val Ala Ile Pro
180 185 190
Glu Glu Arg Ala Leu Val Phe Asp Val Glu Val Cys Leu Ala Glu Gly
195 200 205
Thr Cys Pro Thr Leu Ala Val Ala Ile Ser Pro Ser Ala Trp Tyr Ser
210 215 220
Trp Cys Ser Gln Arg Leu Val Glu Glu Arg Tyr Ser Trp Thr Ser Gln
225 230 235 240
Leu Ser Pro Ala Asp Leu Ile Pro Leu Glu Val Pro Thr Gly Ala Ser
245 250 255
Ser Pro Thr Gln Arg Asp Trp Gln Glu Gln Leu Val Val Gly His Asn
260 265 270
Val Ser Phe Asp Arg Ala His Ile Arg Glu Gln Tyr Leu Ile Gln Gly
275 280 285
Ser Arg Met Arg Phe Leu Asp Thr Met Ser Met His Met Ala Ile Ser
290 295 300
Gly Leu Ser Ser Phe Gln Arg Ser Leu Trp Ile Ala Ala Lys Gln Gly
305 310 315 320
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325 330 335
Lys Ala Arg Arg Gly Pro Ala Ile Ser Ser Trp Asp Trp Leu Asp Ile
340 345 350
Ser Ser Val Asn Ser Leu Ala Glu Val His Arg Leu Tyr Val Gly Gly
355 360 365
Pro Pro Leu Glu Lys Glu Pro Arg Glu Leu Phe Val Lys Gly Thr Met
370 375 380
Lys Asp Ile Arg Glu Asn Phe Gln Asp Leu Met Gln Tyr Cys Ala Gln

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385          390          395          400
Asp Val Trp Ala Thr His Glu Val Phe Gln Gln Gln Leu Pro Leu Phe
405          410          415
Leu Glu Arg Cys Pro His Pro Val Thr Leu Ala Gly Met Leu Glu Met
420          425          430
Gly Val Ser Tyr Leu Pro Val Asn Gln Asn Trp Glu Arg Tyr Leu Ala
435          440          445
Glu Ala Gln Gly Thr Tyr Glu Glu Leu Gln Arg Glu Met Lys Lys Ser
450          455          460
Leu Met Asp Leu Ala Asn Asp Ala Cys Gln Leu Leu Ser Gly Glu Arg
465          470          475          480
Tyr Lys Glu Asp Pro Trp Leu Trp Asp Leu Glu Trp Asp Leu Gln Glu
485          490          495
Phe Lys Gln Lys Lys Ala Lys Lys Val Lys Lys Glu Pro Ala Thr Ala
500          505          510
Ser Lys Leu Pro Ile Glu Gly Ala Gly Ala Pro Gly Asp Pro Met Asp
515          520          525
Gln Glu Asp Leu Gly Pro Cys Ser Glu Glu Glu Glu Phe Gln Gln Asp
530          535          540
Val Met Ala Arg Ala Cys Leu Gln Lys Leu Lys Gly Thr Thr Glu Leu
545          550          555          560
Leu Pro Lys Arg Pro Gln His Leu Pro Gly His Pro Gly Trp Tyr Arg
565          570          575
Lys Leu Cys Pro Arg Leu Asp Asp Pro Ala Trp Thr Pro Gly Pro Ser
580          585          590
Leu Leu Ser Leu Gln Met Arg Val Thr Pro Lys Leu Met Ala Leu Thr
595          600          605
Trp Asp Gly Phe Pro Leu His Tyr Ser Glu Arg His Gly Trp Gly Tyr
610          615          620
Leu Val Pro Gly Arg Arg Asp Asn Leu Ala Lys Leu Pro Thr Gly Thr
625          630          635          640
Thr Leu Glu Ser Ala Gly Val Val Cys Pro Tyr Arg Ala Ile Glu Ser
645          650          655
Leu Tyr Arg Lys His Cys Leu Glu Gln Gly Lys Gln Gln Leu Met Pro
660          665          670
Gln Glu Ala Gly Leu Ala Glu Glu Phe Leu Leu Thr Asp Asn Ser Ala
675          680          685
Ile Trp Gln Thr Val Glu Glu Leu Asp Tyr Leu Glu Val Glu Ala Glu
690          695          700
Ala Lys Met Glu Asn Leu Arg Ala Ala Val Pro Gly Gln Pro Leu Ala
705          710          715          720
Leu Thr Ala Arg Gly Gly Pro Lys Asp Thr Gln Pro Ser Tyr His His
725          730          735
Gly Asn Gly Pro Tyr Asn Asp Val Asp Ile Pro Gly Cys Trp Phe Phe
740          745          750
Lys Leu Pro His Lys Asp Gly Asn Ser Cys Asn Val Gly Ser Pro Phe
755          760          765
Ala Lys Asp Phe Leu Pro Lys Met Glu Asp Gly Thr Leu Gln Ala Gly
770          775          780
Pro Gly Gly Ala Ser Gly Pro Arg Ala Leu Glu Ile Asn Lys Met Ile
785          790          795          800
Ser Phe Trp Arg Asn Ala His Lys Arg Ile Ser Ser Gln Met Val Val
805          810          815
Trp Leu Pro Arg Ser Ala Leu Pro Arg Ala Val Ile Arg His Pro Asp

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820 825 830
Tyr Asp Glu Glu Gly Leu Tyr Gly Ala Ile Leu Pro Gln Val Val Thr
835 840 845
Ala Gly Thr Ile Thr Arg Arg Ala Val Glu Pro Thr Trp Leu Thr Ala
850 855 860
Ser Asn Ala Arg Pro Asp Arg Val Gly Ser Glu Leu Lys Ala Met Val
865 870 875 880
Gln Ala Pro Pro Gly Tyr Thr Leu Val Gly Ala Asp Val Asp Ser Gln
885 890 895
Glu Leu Trp Ile Ala Ala Val Leu Gly Asp Ala His Phe Ala Gly Met
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His Gly Cys Thr Ala Phe Gly Trp Met Thr Leu Gln Gly Arg Lys Ser
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Arg Glu His Ala Lys Ile Phe Asn Tyr Gly Arg Ile Tyr Gly Ala Gly
945 950 955 960
Gln Pro Phe Ala Glu Arg Leu Leu Met Gln Phe Asn His Arg Leu Thr
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Gln Gln Glu Ala Ala Glu Lys Ala Gln Gln Met Tyr Ala Ala Thr Lys
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Gly Leu Arg Trp Tyr Arg Leu Ser Asp Glu Gly Glu Trp Leu Val Arg
995 1000 1005
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Gln Asp Leu Arg Lys Val Gln Arg Glu Thr Ala Arg Lys Ser Gln Trp
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Ser Glu Met Phe Asn Lys Leu Glu Ser Ile Ala Thr Ser Asp Ile Pro
1060 1065 1070
Arg Thr Pro Val Leu Gly Cys Cys Ile Ser Arg Ala Leu Glu Pro Ser
1075 1080 1085
Ala Val Gln Glu Glu Phe Met Thr Ser Arg Val Asn Trp Val Val Gln
1090 1095 1100
Ser Ser Ala Val Asp Tyr Leu His Leu Met Leu Val Ala Met Lys Trp
1105 1110 1115 1120
Leu Phe Glu Glu Phe Ala Ile Asp Gly Arg Phe Cys Ile Ser Ile His
1125 1130 1135
Asp Glu Val Arg Tyr Leu Val Arg Glu Glu Asp Arg Tyr Arg Ala Ala
1140 1145 1150
Leu Ala Leu Gln Ile Thr Asn Leu Leu Thr Arg Cys Met Phe Ala Tyr
1155 1160 1165
Lys Leu Gly Leu Asn Asp Leu Pro Gln Ser Val Ala Phe Phe Ser Ala
1170 1175 1180
Val Asp Ile Tyr Arg Cys Leu Arg Lys Glu Val Thr Met Asp Cys Lys
1185 1190 1195 1200
Thr Pro Ser Asn Pro Thr Gly Met Glu Arg Arg Tyr Gly Ile Pro Gln
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Gly Glu Ala Leu Asp Ile Tyr Gln Ile Glu Leu Thr Lys Gly Ser
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Leu Glu Lys Arg Ser Gln Pro Gly Pro
1235 1240

<210> 4781
<211> 344
<212> DNA
<213> Homo sapiens

<400> 4781
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120
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180
gcggcaacca cagccaagac gctcattccc aaaagtcagc acagaatgct ggctcccaca
240
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344

<210> 4782
<211> 109
<212> PRT
<213> Homo sapiens

<400> 4782
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35 40 45
Ser Glu Lys His Gln Gly Lys Ala Ala Thr Thr Ala Lys Thr Leu Ile
50 55 60
Pro Lys Ser Gln His Arg Met Leu Ala Pro Thr Gly Ala Val Ser Thr
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Arg Thr Arg Gln Lys Gly Val Thr Thr Ala Val Ile Pro Pro Lys Glu
85 90 95
Lys Lys Pro Gln Ala Thr Pro Pro Pro Ala Pro Phe Gln
100 105

<210> 4783
<211> 1143
<212> DNA
<213> Homo sapiens

<400> 4783
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180
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240

agatggagac ccacatctca tgcctgttcc cggagctgct ggccatgac ttcggtacc
 300
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 360
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 420
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 ata
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<210> 4784

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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 20 25 30
 Ala Leu Asn Leu Ser Leu Cys Lys Gln Ile Thr Asp Ser Ser Leu Gly
 35 40 45
 Arg Ile Ala Gln Tyr Leu Lys Gly Leu Glu Val Leu Glu Leu Gly Gly
 50 55 60
 Cys Ser Asn Ile*Thr Asn Thr Gly Leu Leu Leu Ile Ala Trp Gly Leu
 65 70 75 80
 Gln Arg Leu Lys Ser Leu Asn Leu Arg Ser Cys Arg His Leu Ser Asp
 85 90 95
 Val Gly Ile Gly His Leu Ala Gly Met Thr Arg Ser Ala Ala Glu Gly
 100 105 110
 Cys Leu Gly Leu Glu Gln Leu Thr Leu Gln Asp Cys Gln Lys Leu Thr

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Asp Leu Ser Leu Lys His Ile Ser Arg Gly Leu Thr Gly Leu Arg Leu
      130      135      140
Leu Asn Leu Ser Phe Cys Gly Gly Ile Ser Asp Ala Gly Leu Leu His
145      150      155      160
Leu Ser His Met Gly Ser Leu Arg Ser Leu Asn Leu Arg Ser Cys Asp
      165      170      175
Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg
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Leu Ser Gly Leu Asp Val Ser Phe Cys Asp Lys Val Gly Asp Gln Ser
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Leu Ala Tyr Ile
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<210> 4785

<211> 3289

<212> DNA

<213> Homo sapiens

<400> 4785

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180
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300
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900
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<210> 4786

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4786

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				20					25					30	
Val	Gly	Ala	Asp	Asn	Val	Gly	Ser	Lys	Gln	Met	Gln	Gln	Ile	Arg	Met
				35					40					45	
Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
				50					55				60		
Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
65						70				75				80	
Leu	Leu	Pro	His	Ile	Arg	Gly	Asn	Val	Gly	Phe	Val	Phe	Thr	Lys	Glu
				85					90					95	
Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
				100					105					110	
Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
				115					120					125	
Gln	Asn	Thr	Gly	Leu	Gly	Pro	Glu	Lys	Thr	Ser	Phe	Phe	Gln	Ala	Leu
				130					135					140	
Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr	Ile	Glu	Ile	Leu	Ser	Asp
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Val	Gln	Leu	Ile	Lys	Thr	Gly	Asp	Lys	Val	Gly	Ala	Ser	Glu	Ala	Thr
				165					170					175	
Leu	Leu	Asn	Met	Leu	Asn	Ile	Ser	Pro	Phe	Ser	Phe	Gly	Leu	Val	Ile
				180					185					190	
Gln	Gln	Val	Phe	Asp	Asn	Gly	Ser	Ile	Tyr	Asn	Pro	Glu	Val	Leu	Asp

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Ile Thr Glu Glu Thr Leu His Ser Arg Phe Leu Glu Gly Val Arg Asn
  210          215          220
Val Ala Ser Val Cys Leu Gln Ile Gly Tyr Pro Thr Val Ala Ser Val
  225          230          235          240
Pro His Ser Ile Ile Asn Gly Tyr Lys Arg Val Leu Ala Leu Ser Val
      245          250          255
Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu Lys Val Lys Ala Phe Leu
  260          265          270
Ala Asp Pro Ser Ala Phe Val Ala Ala Ala Pro Val Ala Ala Thr
  275          280          285
Thr Ala Ala Pro Ala Ala Ala Ala Ala Ala Pro Ala Lys Val Glu
  290          295          300
Ala Lys Glu Glu Ser Glu Glu Ser Asp Glu Asp Met Gly Phe Gly Leu
  305          310          315          320
Phe Asp

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<210> 4787

<211> 1258

<212> DNA

<213> Homo sapiens

<400> 4787

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900

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<210> 4788

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4788

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			20					25					30		
Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser	Ser	Pro	Pro
			35				40					45			
Arg	Pro	Asn	His	Tyr	Leu	Leu	Ile	Asp	Thr	Gln	Gly	Val	Pro	Tyr	Thr
			50			55				60					
Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro	Gly	Ala	Ser	Gly	Ala
			65			70				75				80	
Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro	Val	Cys	Ser	Arg	Val	Phe
			85					90					95		
Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His	Ser	Ile	Thr	His	Ser	Glu	Val
			100				105					110			
Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys	Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser
			115				120					125			
His	Leu	Ala	Arg	His	His	Ser	Ile	His	Leu	Ala	Gly	Gly	Arg	Pro	
			130			135					140				
His	Gly	Cys	Pro	Leu	Cys	Pro	Arg	Arg	Phe	Arg	Asp	Ala	Gly	Glu	Leu
			145			150				155				160	
Ala	Gln	His	Ser	Arg	Val	His	Ser	Gly	Glu	Arg	Pro	Phe	Gln	Cys	Pro
			165					170					175		
His	Cys	Pro	Arg	Arg	Phe	Met	Glu	Gln	Asn	Thr	Leu	Gln	Lys	His	Thr
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<210> 4789

<211> 1515

<212> DNA

<213> Homo sapiens

<400> 4789

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<212> PRT

<213> Homo sapiens

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1740
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2460
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2520

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 2640
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 2700
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<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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 20 25 30
 Phe Glu Ser Phe Leu Asp Asp Glu Glu Asp Leu Asp Val Lys Ala Gly
 35 40 45
 Gly Gly Cys Val Met Thr Ile Gly Glu Met Leu Arg Ser Phe Leu Thr
 50 55 60
 Lys Leu Glu Trp Phe Ser Thr Leu Phe Pro Arg Ile Pro Val Pro Val
 65 70 75 80
 Gln Lys Asn Ile Asp Gln Gln Ile Lys Thr Arg Pro Arg Lys Ile Lys
 85 90 95
 Lys Asp Gly Lys Glu Gly Ala Glu Glu Ile Asp Arg His Val Glu Arg
 100 105 110
 Arg Arg Ser Arg Ser Pro Arg Arg Ser Leu Ser Pro Arg Arg Ser Pro
 115 120 125
 Arg Arg Ser Arg Ser Arg Ser His His Arg Glu Gly His Gly Ser Ser
 130 135 140
 Ser Phe Asp Arg Glu Leu Glu Arg Glu Lys Glu Arg Gln Arg Leu Glu
 145 150 155 160
 Arg Glu Ala Lys Glu Arg Glu Lys Glu Arg Arg Ser Arg Ser Ile
 165 170 175
 Asp Arg Gly Leu Glu Arg Arg Arg Ser Arg Ser Arg Glu Arg His Arg
 180 185 190
 Ser Arg Ser Arg Ser Arg Asp Arg Lys Gly Asp Arg Arg Asp Arg Asp
 195 200 205
 Arg Glu Arg Glu Lys Glu Asn Glu Arg Gly Arg Arg Asp Arg Asp
 210 215 220
 Tyr Asp Lys Glu Arg Gly Asn Glu Arg Glu Lys Glu Arg Glu Arg Ser
 225 230 235 240
 Arg Glu Arg Ser Lys Glu Gln Arg Ser Arg Gly Glu Val Glu Glu Lys
 245 250 255
 Lys His Lys Glu Asp Lys Asp Asp Arg Arg His Arg Asp Asp Lys Arg
 260 265 270
 Asp Ser Lys Lys Glu Lys Lys His Ser Arg Ser Arg Ser Arg Glu Arg

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      275      280      285
Lys His Arg Ser Arg Ser Arg Ser Arg Asn Ala Gly Lys Arg Ser Arg
 290      295      300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu
305      310      315      320
Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
      325      330      335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
 340      345      350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
 355      360      365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
 370      375      380
Ile Glu Gln Glu Ser Gln Glu Lys Gln His Lys Asn Lys Asp Glu Thr
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Val

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<210> 4799
 <211> 358
 <212> DNA
 <213> Homo sapiens

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<400> 4799
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ctggatcagc ctcacaccg agtggctcaa cctcatcttc aagtgggtgag acagagaagc
180
cctccggcat cctgggtccc acccccgagg gccctgagtc atgtgtttct tttgggagac
240
aggccctttt ggtgggtcca tgagtctggt tactacagcc aggtccagc ccaggttcac
300
cagttccct cttcttgtga gactgggtcca ggcagccctt ctggacactg catgatca
358

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<210> 4800
 <211> 119
 <212> PRT
 <213> Homo sapiens

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<400> 4800
Ala Ser Leu Ala Gly Glu Arg Val Ala Leu Asp His Leu Ser Gly Arg
 1      5      10      15
Ser Gln Asp Pro Leu Ser Val Leu Leu Pro Arg Gly Leu Leu Arg Leu
 20      25      30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
 35      40      45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
 50      55      60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
 65      70      75      80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

```

85 90 95
 Ala Gln Val His Gln Phe Pro Ser Ser Cys Glu Thr Gly Pro Gly Ser
 100 105 110
 Pro Ser Gly His Cys Met Ile
 115

<210> 4801

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 4801

ttggagatca gagggtcgac gctgcttcgt tgcctggact ctggtttccg ccctggagca
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 120
 atagccgagg cgctacagaa ccagctagcc tggctggaga acgtgtggct ctggatcacc
 180
 tttctgggag atcccaagat cctctttctg ttctacttcc ccgccccta ctacgcctcc
 240
 cgccgtgtgg gcctgcgggt gctctggatc agcctcatca ccgagtggct caacctcatc
 300
 ttcaagtgggt ttctttttgg agacaggccc ttttgggtgg tccatgagtc tggttactac
 360
 agccaggctc cagcccagggt tcaccagttc cctctttctt gtgagactgg tccaggcagc
 420
 ccttctggac actgcctgat cacaggagca gccctctggc ccataatgac agccctgtct
 480
 tcgcagggtg ccaactcggc ccgcagccgc tgggtaaggg tgatgcctag cctggcttat
 540
 tgcaccttcc ttttggcggt tggcttgtcg cgaatcttca tcttagcaca ttccctcac
 600
 caggtgtctg ctggcctaata aactggcgct gtcctgggct ggctgatgac tnnccccgag
 660
 tgcctatgga gcgggagcgt aagcttctat gggttgactg cactggccct catgctaggc
 720
 accagcctca tctattggac cctctttaca ctgggcttgg atctttcttg gtccatcagc
 780
 ctacgcttca agtggtgtga gcggcctgag tggatacacg tggatagccg gccctttgac
 840
 tccctgagcc gtgactcagg ggctgccctg ggcctgggca ttgccttgca ctctccctgc
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 960
 gccatggggc tgctggggcc cctggactgg ctggggccacc ccctcagat cagcctcttc
 1020
 tacattttca atttcctcaa gtacaccctc tggccatgcc tagtctcggc cctcgtgccc
 1080
 tgggcagtgc acatgttcag tgcccaggaa gcaccgccc tccactcttc ctgacttctt
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 gtgtgcctcc ctttccttcc cctcccacaa agccaacact ctgtgaccac cactctccag
 1200
 gaggcagccc catcccttc cagcccctaa gtaggccttc ccctccctaa atctgcttcc
 1260

gcaccacctg gtcttagccc caaagatggg ccttctctct cccagataag ttggtctctcc
1320
ctctgccttt cctctcaagc ccccaaagag caaaggcaac agcaagacca gcgggttctt
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1440
aaaaaaa
1447

<210> 4802
<211> 377
<212> PRT
<213> Homo sapiens

<400> 4802
Leu Glu Ile Arg Gly Ser Thr Leu Leu Arg Cys Leu Asp Ser Gly Phe
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Arg Pro Gly Ala Ser Arg Gly Leu Val Gly Ser Trp Ala Ala Met Glu
20 25 30
Ser Thr Leu Gly Ala Gly Ile Val Ile Ala Glu Ala Leu Gln Asn Gln
35 40 45
Leu Ala Trp Leu Glu Asn Val Trp Leu Trp Ile Thr Phe Leu Gly Asp
50 55 60
Pro Lys Ile Leu Phe Leu Phe Tyr Phe Pro Ala Ala Tyr Tyr Ala Ser
65 70 75 80
Arg Arg Val Gly Ile Ala Val Leu Trp Ile Ser Leu Ile Thr Glu Trp
85 90 95
Leu Asn Leu Ile Phe Lys Trp Phe Leu Phe Gly Asp Arg Pro Phe Trp
100 105 110
Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro Ala Gln Val His
115 120 125
Gln Phe Pro Ser Ser Cys Glu Thr Gly Pro Gly Ser Pro Ser Gly His
130 135 140
Cys Met Ile Thr Gly Ala Ala Leu Trp Pro Ile Met Thr Ala Leu Ser
145 150 155 160
Ser Gln Val Ala Thr Arg Ala Arg Ser Arg Trp Val Arg Val Met Pro
165 170 175
Ser Leu Ala Tyr Cys Thr Phe Leu Leu Ala Val Gly Leu Ser Arg Ile
180 185 190
Phe Ile Leu Ala His Phe Pro His Gln Val Leu Ala Gly Leu Ile Thr
195 200 205
Gly Ala Val Leu Gly Trp Leu Met Thr Xaa Pro Glu Cys Leu Trp Ser
210 215 220
Gly Ser Xaa Ser Phe Tyr Gly Leu Thr Ala Leu Ala Leu Met Leu Gly
225 230 235 240
Thr Ser Leu Ile Tyr Trp Thr Leu Phe Thr Leu Gly Leu Asp Leu Ser
245 250 255
Trp Ser Ile Ser Leu Ala Phe Lys Trp Cys Glu Arg Pro Glu Trp Ile
260 265 270
His Val Asp Ser Arg Pro Phe Ala Ser Leu Ser Arg Asp Ser Gly Ala
275 280 285
Ala Leu Gly Leu Gly Ile Ala Leu His Ser Pro Cys Tyr Ala Gln Val
290 295 300
Arg Arg Ala Gln Leu Gly Asn Gly Gln Lys Ile Ala Cys Leu Val Leu

```

305              310              315              320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
              325              330              335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
              340              345              350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
              355              360              365
Gln Glu Ala Pro Pro Ile His Ser Ser
              370              375

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<210> 4803
 <211> 564
 <212> DNA
 <213> Homo sapiens

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<400> 4803
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120
ccaaaacctg ctaatgcctg atttccatta cgtgctactc ctcaaatggc agcggcttct
180
gaatattaca gagatgggtg gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
attttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
300
gaaagttaaat ttagatgctt tcctctcttc ttattttgtg gaggtatttc ctgttcagta
360
gcaaatacgt tatagaatat attagcattg ttatatttta aactaatgac taatcatttc
420
agctttatct atactgttgc attttatatt tcacaggagg caatagaaaa agtgaaagaa
480
agtgacaaaac tagttgcaac aagtaaaatc accctacaag acaaacagaa catgggtgaag
540
agagtcagca tcatgtctta cgcg
564

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<210> 4804
 <211> 53
 <212> PRT
 <213> Homo sapiens

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<400> 4804
Met Thr Asn His Phe Ser Phe Ile His Thr Val Ala Phe Tyr Ile Ser
1          5          10          15
Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
          20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
          35          40          45
Ile Met Ser Tyr Ala
50

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<210> 4805
 <211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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120
aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc
180
acatctgaga agttaaatgg agtaaaactg tggattacag ctgggccaag ggaaaaattt
240
actgcagctg agtttgaaat cctgaagaaa tatcttgaca ctgggtggga tgccttctg
300
atgctagggg aaggtggaga atccagattt gacaccaata ttaacttttt actagaagaa
360
tatggaatca tggtaataa tgatgctgtg gttagaaatg tatatcacia atatttccat
420
cctaagaag ctctagtctc cagtggagtc ttgaacaggg aaattagccg agctgcagga
480
aaggctgtgc tggcgtatcat tgatgaggaa agcagtgga acaatgccca ggctctcacc
540
tttgtgtatc cttttggtgc cacattgagt gtcattgaaac cagcagtgga ggttctgtct
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720
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780
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1020
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1080
gagttaccac ctctctctct ggagctatct gatttagatg aaacgttctc ctctgagaag
1140
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aagtggtgtg atattcttgg agtaaccagt aaactaccaa aggaccaaca ggaagcaca
1260
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1320
gacatcgata caagtgaac agcattccag aacaatttct gaagaccatg cctcttgaag
1380
ctttttctgc ctctgtatc tctctttgta aactatttct aaattgtttt tcaactcctt
1440
atcaaaattg ttatataact ctttctcca tgagctctgg aaggtatatg catcttctgt
1500

aataactcaga taggtataag atttttcaca aaatccttat gtaagatata ttccattttt
 1560
 aaaaaattaaa tgtatggttg catctgtctt ttataccct aaaaaaaaaa aaaaaaaaaa
 1619

<210> 4806
 <211> 438
 <212> PRT
 <213> Homo sapiens

<400> 4806
 Met Glu Lys Glu Leu Arg Ser Thr Ile Leu Phe Asn Ala Tyr Lys Lys
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 Glu Ile Phe Thr Thr Asn Asn Gly Tyr Lys Ser Met Gln Lys Lys Leu
 20 25 30
 Arg Ser Asn Trp Lys Ile Gln Ser Leu Lys Asp Glu Ile Thr Ser Glu
 35 40 45
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys
 50 55 60
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly
 65 70 75 80
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Glu Ser Arg Phe Asp
 85 90 95
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn
 100 105 110
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu
 115 120 125
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala
 130 135 140
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn
 145 150 155 160
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val
 165 170 175
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro
 180 185 190
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly
 195 200 205
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu
 210 215 220
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Phe Gln Trp
 225 230 235 240
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro
 245 250 255
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys
 260 265 270
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe
 275 280 285
 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe
 290 295 300
 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro
 305 310 315 320
 Leu Gln Leu Ile Gln Pro Gln Phe Glu Thr Pro Leu Pro Thr Leu Gln
 325 330 335
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

340 345 350
 Glu Leu Phe Asp Leu Asp Glu Thr Phe Ser Ser Glu Lys Ala Arg Leu
 355 360 365
 Ala Gln Ile Thr Asn Lys Cys Thr Glu Glu Asp Leu Glu Phe Tyr Val
 370 375 380
 Arg Lys Cys Gly Asp Ile Leu Gly Val Thr Ser Lys Leu Pro Lys Asp
 385 390 395 400
 Gln Gln Asp Ala Lys His Ile Leu Glu His Val Phe Phe Gln Val Val
 405 410 415
 Glu Phe Lys Lys Leu Asn Gln Glu His Asp Ile Asp Thr Ser Glu Thr
 420 425 430
 Ala Phe Gln Asn Asn Phe
 435

<210> 4807
 <211> 1177
 <212> DNA
 <213> Homo sapiens

<400> 4807
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 120
 agccccgcaa tctgcagacc tcagcggcag cgcaggtggc agacctgcct cctttgcctg
 180
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 240
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 300
 cgccatctgg acacccttcg cgttgttgct caggaggcac aatccctcgg gggccaatgt
 360
 gtgcctgtgg tgtgcgattc aagccaggag agtgaagtgc gaagcctgtt tgagcaagtg
 420
 gatcgggaac agcaagggcg tctagatgtg ctggtcaaca atgcttatgc aggggtccag
 480
 acgatcctga acaccaggaa taaggcattc tgggaaaccc ctgcctccat gtgggatgat
 540
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 600
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 720
 cagcagctgc ggcgccatgg ggtcagctgt gtgtctctgt ggccggggat tgtgcagaca
 780
 gaactgtga aggagcatat ggcaaaggag gaggtcctgc aggatcctgt gttgaagcag
 840
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 960
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 1020

agctctgttc tctcacacgt gtccggcctg ggctggctgg cctcctacct gccctccttc
 1080
 ctccgtgtgc ccaagtggat tattgccctc tacactagca agttctaacc ctccgtgtct
 1140
 gacactacgt ctctgcttgt ctgagaagac aacgcgt
 1177

<210> 4808
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 4808
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 20 25 30
 Thr Val Tyr Ile Thr Gly Arg His Leu Asp Thr Leu Arg Val Val Ala
 35 40 45
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp
 50 55 60
 Ser Ser Gln Glu Ser Glu Val Arg Ser Leu Phe Glu Gln Val Asp Arg
 65 70 75 80
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly
 85 90 95
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro
 100 105 110
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr
 115 120 125
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly
 130 135 140
 Leu Ile Val Val Ile Ser Ser Pro Gly Ser Leu Gln Tyr Met Phe Asn
 145 150 155 160
 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp
 165 170 175
 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp
 180 185 190
 Pro Gly Ile Val Gln Thr Glu Leu Leu Lys Glu His Met Ala Lys Glu
 195 200 205
 Glu Val Leu Gln Asp Pro Val Leu Lys Gln Phe Lys Ser Ala Phe Ser
 210 215 220
 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala
 225 230 235 240
 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys
 245 250 255
 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val
 260 265 270
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu
 275 280 285
 Gly Trp Leu Ala Ser Tyr Leu Pro Ser Phe Leu Arg Val Pro Lys Trp
 290 295 300
 Ile Ile Ala Leu Tyr Thr Ser Lys Phe
 305 310

<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

<400> 4809
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<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

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65              70              75              80
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Leu Pro Ser Gly Gln Pro Cys Pro
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<210> 4811
 <211> 3207
 <212> DNA
 <213> Homo sapiens

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1140

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 3207

<210> 4812
 <211> 306
 <212> PRT
 <213> Homo sapiens

<400> 4812
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 35 40 45
 Ser Ala Leu Gly Leu Arg Leu Gly Asp Arg Val Leu Leu Asp Gly Gln
 50 55 60
 Lys Thr Gly Thr Leu Arg Phe Cys Gly Thr Thr Glu Phe Ala Ser Gly
 65 70 75 80
 Ser Trp Val Gly Val Glu Leu Asp Glu Pro Glu Gly Lys Asn Asp Gly
 85 90 95
 Ser Val Gly Gly Val Arg Tyr Phe Ile Cys Pro Pro Lys Gln Gly Leu
 100 105 110
 Phe Ala Ser Val Ser Lys Ile Ser Lys Ala Val Asp Ala Pro Pro Ser
 115 120 125
 Ser Val Thr Ser Thr Pro Gly Pro Pro Arg Met Asp Phe Ser Arg Val
 130 135 140
 Thr Gly Lys Gly Arg Arg Glu His Lys Gly Lys Lys Lys Thr Pro Ser
 145 150 155 160
 Ser Pro Ser Leu Gly Ser Leu Gln Gln Arg Asp Gly Ala Lys Ala Glu
 165 170 175
 Val Gly Asp Gln Val Leu Val Ala Gly Gln Lys Gln Gly Ile Val Arg
 180 185 190
 Phe Tyr Gly Lys Thr Asp Phe Ala Pro Gly Tyr Trp Tyr Gly Ile Glu
 195 200 205
 Leu Asp Gln Pro Thr Gly Lys His Asp Gly Ser Val Phe Gly Val Arg
 210 215 220
 Tyr Phe Thr Cys Pro Pro Arg His Gly Val Phe Ala Pro Ala Ser Arg
 225 230 235 240
 Ile Gln Arg Ile Gly Gly Ser Thr Asp Ser Pro Gly Asp Ser Val Gly

245 250 255
 Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
 260 265 270
 Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
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 Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
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<210> 4813
 <211> 400
 <212> DNA
 <213> Homo sapiens

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<210> 4814
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4814
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 20 25 30
 Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
 35 40 45
 Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
 50 55 60
 Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Thr Thr Ala Ser Phe
 65 70 75 80
 Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
 85 90 95
 Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
 100 105 110
 Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
 115 120 125

<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
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 Gln Pro Ser Tyr Arg Ser Ala Leu Met
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<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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 Ser Gln Ala Gly Leu Asn Gln Lys Leu Asn Phe Ile Val Thr Gly Leu
 35 40 45
 Gln Asp Ile Asp Lys Cys Arg Gln Gln Leu His Asp Ile Thr Val Pro
 50 55 60
 Leu Glu Val Phe Glu Tyr Ile Asp Gln Gly Arg Asn Pro Gln Leu Tyr
 65 70 75 80
 Thr Lys Glu Cys Leu Glu Arg Ala Leu Ala Lys Asn Glu Gln Val Lys

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Gly Lys Ile Asp Thr Met Lys Lys Phe Lys Ser Leu Leu Ile Gln Glu
      100          105          110
Leu Ser Lys Val Phe Pro Glu Asp Met Ala Lys Tyr Arg Ser Ile Arg
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Gly Glu Asp His Pro Pro Ser
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<210> 4819

<211> 1655

<212> DNA

<213> Homo sapiens

<400> 4819

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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
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Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
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Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65					70				75					80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85						90					95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105					110		
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val
			115				120					125			
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
		130				135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
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Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
			165					170						175	
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			180					185					190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
			195				200					205			
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
		210				215					220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225					230				235					240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

245 250 255
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 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
 275 280 285
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
 290 295 300
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
 305 310 315 320
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
 325 330 335
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
 340 345 350
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
 355 360 365
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
 370 375 380
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
 385 390 395 400
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
 405 410 415
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
 420 425 430
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
 435 440 445
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser
 450 455 460
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
 465 470 475 480
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
 485 490 495
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
 500 505 510
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
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 Glu Phe Leu Ala Ser Arg Ala
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<210> 4821

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4821

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<212> PRT
<213> Homo sapiens

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Ala Leu Gln Gln Lys Arg Glu Thr Leu Ser Pro Leu Cys Leu Ile Pro
65 70 75 80
Met Val Thr Ser Pro Arg Glu Glu Gln Gln Leu Leu Ala Ser Thr Ser
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Lys Pro Val Val Lys Leu Leu His Asn Arg Ser Asn Asn Lys Tyr Ser
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<212> PRT

<213> Homo sapiens

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<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 4826

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 5940
 cgcaacatca tcctcacaac tatgccagca ggactaagc tcattgctgg caataagcct
 6000
 gttagtttcc tccactgtca gcagttgcag cagcttcagc agcaaggta gccacacag
 6060
 gtgcgcctcc agactgtccc tgcctccnat ctccaacagg gaacagcttc tggctcctcc
 6120
 aaagcagtct ccactgttgt tgtgactaca gctccgtctc ctaaacaggc acctgagcaa
 6180
 caatgattat gagagaggat gggcttccgt gaaagaccat gcctggctctg tcctggctga
 6240
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 6277

<210> 4828

<211> 1322

<212> PRT

<213> Homo sapiens

<400> 4828

Met	Asp	Ser	Arg	Gly	Leu	Pro	Ala	Trp	Thr	Ser	Gln	Ser	Thr	Glu	Ile
1				5					10					15	
Ser	Thr	Cys	Gly	Glu	Glu	Thr	Met	Asp	Ser	Leu	Asp	His	Met	Leu	Thr
			20					25					30		
Asp	Pro	Leu	Glu	Leu	Gly	Pro	Cys	Gly	Asp	Gly	His	Gly	Thr	Arg	Ile
			35				40					45			
Met	Glu	Asp	Cys	Leu	Leu	Gly	Gly	Thr	Arg	Val	Ser	Leu	Pro	Glu	Asp
	50					55				60					
Leu	Leu	Glu	Asp	Pro	Glu	Ile	Phe	Phe	Asp	Val	Val	Ser	Leu	Ser	Thr
	65				70				75					80	
Trp	Gln	Glu	Val	Leu	Ser	Asp	Ser	Gln	Arg	Glu	His	Leu	Gln	Gln	Phe

4009

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      515      520      525
Thr Asp Tyr Val Val Arg Pro Ser Thr Gly Glu Glu Lys Arg Val Phe
530      535      540
Gln Glu Gln Glu Arg Tyr Ser Gln Pro His Lys Ala Phe Thr
545      550      555      560
Phe Arg Met His Gly Phe Glu Ser Val Val Gly Pro Val Lys Gly Val
      565      570      575
Phe Asp Lys Glu Thr Ser Leu Asn Lys Ala Arg Glu His Ser Leu Leu
580      585      590
Arg Ser Asp Arg Pro Ala Tyr Val Thr Ile Leu Ser Leu Val Arg Asp
595      600      605
Ala Ala Ala Arg Leu Pro Asn Gly Glu Gly Thr Arg Ala Glu Ile Cys
610      615      620
Glu Leu Leu Lys Asp Ser Gln Phe Leu Ala Pro Asp Val Thr Ser Thr
625      630      635      640
Gln Val Asn Thr Val Val Ser Gly Ala Leu Asp Arg Leu His Tyr Glu
      645      650      655
Lys Asp Pro Cys Val Lys Tyr Asp Ile Gly Arg Lys Leu Trp Ile Tyr
660      665      670
Leu His Arg Asp Arg Ser Glu Glu Glu Phe Glu Arg Ile His Gln Ala
675      680      685
Gln Ala Ala Ala Lys Ala Arg Lys Ala Leu Gln Gln Lys Pro Lys
690      695      700
Pro Pro Ser Lys Val Lys Ser Ser Ser Lys Glu Ser Ser Ile Lys Val
705      710      715      720
Leu Ser Ser Gly Pro Ser Glu Gln Ser Gln Met Ser Leu Ser Asp Ser
      725      730      735
Ser Met Pro Pro Thr Pro Val Thr Pro Val Thr Pro Thr Thr Pro Ala
740      745      750
Leu Pro Ala Ile Pro Ile Ser Pro Pro Pro Val Ser Ala Val Asn Lys
755      760      765
Ser Gly Pro Ser Thr Val Ser Glu Pro Ala Lys Ser Ser Ser Gly Val
770      775      780
Leu Leu Val Ser Ser Pro Thr Met Pro His Leu Gly Thr Met Leu Ser
785      790      795      800
Pro Ala Ser Ser Gln Thr Ala Pro Ser Ser Gln Ala Ala Ala Arg Val
      805      810      815
Val Ser His Ser Gly Ser Ala Gly Leu Ser Gln Val Arg Val Val Ala
820      825      830
Gln Pro Ser Leu Pro Ala Val Pro Gln Gln Ser Gly Gly Pro Ala Gln
835      840      845
Thr Leu Pro Gln Met Pro Ala Gly Pro Gln Ile Arg Val Pro Ala Thr
850      855      860
Ala Thr Gln Thr Lys Val Val Pro Gln Thr Val Met Ala Thr Val Pro
865      870      875      880
Val Lys Ala Gln Thr Thr Ala Ala Thr Val Gln Arg Pro Gly Pro Gly
      885      890      895
Gln Thr Gly Leu Thr Val Thr Ser Leu Pro Ala Thr Ala Ser Pro Val
900      905      910
Ser Lys Pro Ala Thr Ser Ser Pro Gly Thr Ser Ala Pro Ser Ala Ser
915      920      925
Thr Ala Ala Val Ile Gln Asn Val Thr Gly Gln Asn Ile Ile Lys Gln
930      935      940
Val Ala Ile Thr Gly Gln Leu Gly Val Lys Pro Gln Thr Gly Asn Ser

```


945 950 955 960
 Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu
 965 970 975
 Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
 980 985 990
 Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
 995 1000 1005
 Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr
 1010 1015 1020
 Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val
 1025 1030 1035 1040
 His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser
 1045 1050 1055
 Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys
 1060 1065 1070
 Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly
 1075 1080 1085
 Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu
 1090 1095 1100
 Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met
 1105 1110 1115 1120
 Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln
 1125 1130 1135
 Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val
 1140 1145 1150
 Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala
 1155 1160 1165
 Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr
 1170 1175 1180
 Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala
 1185 1190 1195 1200
 Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln
 1205 1210 1215
 Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn
 1220 1225 1230
 Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr
 1235 1240 1245
 Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe
 1250 1255 1260
 Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr
 1265 1270 1275 1280
 Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
 1285 1290 1295
 Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala
 1300 1305 1310
 Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln
 1315 1320

<210> 4829

<211> 1605

<212> DNA

<213> Homo sapiens

<400> 4829

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120
ggggatatgg ttcttttaga acctctcaat gaggagacct tcatcaacaa cctcaagaag
180
cgctttgacc acagtgaat atacacttac attggaagtg tggttatatc tgttaaccca
240
tatcggtctt taccattta ttcaccagag aaagtggag aatacaggaa cagaaatatt
300
tatgaactga gccctcacat ctttgccctt tcggatgaag catacagatc cctacgagat
360
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc
420
agtaagcttg tcatgtccta tgtggcagct gtttgtgaa aaggagcaga agttaatcaa
480
gttaaagaac agcttttaca gtccaacccg gtcctggaag cttttggaaa tgccaaaact
540
gtaaggaatg acaactctc tagatttggc aaatatatgg atattgaatt tgactttaaa
600
ggcgatccac taggaggagt aataagtaac tatcttttag agaaatctcg ggttggttaa
660
cagccaagag gtgaaagaaa cttccatgtg ttctatcage tgctctctgg tgcctctgaa
720
gagctcctca ataaacttaa gcttgagagg gatttcagca ggtataacta cctgagctg
780
gattcggcc aagtgaatgg agtggatgat gcagcaaatt ttagaacctg gcggaatgcc
840
atgcagattg tgggctttat ggatcatgaa gctgagctg tcttgccggt ggtggcagca
900
gtgttgaaac tggggaacat tgagttcaag cccgaatctc gagtgaatgg tctagatgaa
960
agcaaaatca aagataaaaa tgagttaaaa gaaatttggt aattgaccgg cattgatcaa
1020
tcagttctag aacgagcatt cagtttccga acagttgagg ccaaacagga gaaagtttca
1080
actacactga atgtggctca ggcttattat gcccgtagt ctctggctaa aaacctctac
1140
agcagggtgt tttcatggtt ggtaaatcga atcaatgaaa gcattaaggc acaaacaaaa
1200
gtgagaaaaga aggtcatggg tgttctggac atttatggct ttgagatttt cgaggacaac
1260
agctttgagc agttcattat taattattgt aacgaaaagc tgcaacaaat cttcattgaa
1320
cttactctta aagaagagca ggaggagtat atacgggagg atatagaatg gactcacatt
1380
gactacttca ataagctat catttgtgac ctaatagaaa ataacacaaa tggaaatcctg
1440
gccatgttgg atgaagagt cctcagacct ggcacagtca ctgatgagac cttcttagaa
1500
aagctgaacc aagtatgtc caccaccag cttttgaaa gcaggatgag caagtgtctt
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1605

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<210> 4830
 <211> 512
 <212> PRT
 <213> Homo sapiens

<400> 4830
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 Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
 20 25 30
 Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
 35 40 45
 Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
 50 55 60
 Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
 65 70 75 80
 Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
 85 90 95
 Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
 100 105 110
 Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
 115 120 125
 Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
 130 135 140
 Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
 145 150 155 160
 Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
 165 170 175
 Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
 180 185 190
 Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
 195 200 205
 Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
 210 215 220
 Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
 225 230 235 240
 Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
 245 250 255
 Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
 260 265 270
 Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
 275 280 285
 Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
 290 295 300
 Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
 305 310 315 320
 Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
 325 330 335
 Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
 340 345 350
 Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
 355 360 365
 Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

```

      370      375      380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385      390      395      400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405      410      415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420      425      430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435      440      445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450      455      460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465      470      475      480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485      490      495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
      500      505      510

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<210> 4831

<211> 578

<212> DNA

<213> Homo sapiens

<400> 4831

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120
ggcgccgagc acgggggacga gccgcgccac gggggcctca ctctgcgctt gggcctccac
180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acgcgggccc ccaagtgagg cccggagacc ccggcccag gcgcccaggc ctgagcccca
360
tgccctcccag caaccagggc ccgcgggtgt ggccccacc agcccaggcc tggactctcc
420
tcagttctgt gtcgtgttcg gggttttctt ctgtgactgg gccgtcttgg tgtctcgtgg
480
cacgcgtcac agtgggtgcta gtctgttttt aacaaaagag gatgaaaagc caaaaaaaaa
540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
578

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<210> 4832

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4832

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Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1      5      10      15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

```

```

      20      25      30
Pro His Phe Asn Lys His Leu Leu Gly Ala Glu His Gly Asp Glu Pro
      35      40      45
Arg His Gly Gly Leu Thr Leu Arg Leu Gly Leu His Gln Gln Ser Val
      50      55      60
Leu Gly Gly Gln Asp Gln Leu Arg Val Arg Val Thr Glu Leu Glu Asp
      65      70      75      80
Glu Val Arg Asn Leu Arg Lys Ile Asn Arg Asp Leu Phe Asp Phe Ser
      85      90      95
Thr Arg Phe Ile Thr Arg Pro Ala Lys
      100      105

```

<210> 4833

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4833

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ctttgagaag gaactgagta ggcaagtgaga agagtcgagt gaagcctggc ccgtgagtgc
120
ctcaacaact gagatgaacg tcgactcgct tgcaggcaag ttgtcactca gcagcgatct
180
gaactatact ctgggttcca gaaaaggcag aggttcttac cgaagcagg ggaggaagcc
240
gcagcccaag gaggtcgta cttgccggga aggtggctcg ggccaggctg cactcaaac
300
ccgtgctctg tccacactgc tacggggcca gagccaagga agcttccact tcttcccca
360
gacagcccca acagcggcta cccaaggag ccagcagcct tgtgtcctgg gatecccgag
420
ccctgcagaa tgaccacca ggatctgagc atcacagcca aactcatcaa tggagggtga
480
gcagggctcg tgggggtgac ctgcgtgttc cccatcgact tggccaagac tcgcctgcag
540
aaccagcatg ggaaagccat gtacaaagga atgacgact gcctgatgaa gacggctcgg
600
gcgagggtct tcttcggcat gtaccgagg gctgcagtga acctcactct ggtcactcca
660
gagaaggcca tcaagctggc ggccaacgac tttttccggc ggctgctcat ggaagatggg
720
atgcagcgga acctgaagat ggagatgctt gccgggtgtg gggctgggat gtgccaggtc
780
gtggtgacct gtccatgga aatgtcaag attcagctgc aggcagctg gacgcctggc
840
cgtccatcat cagggtcgg cctcagcacc ct
872

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<210> 4834

<211> 147

<212> PRT

<213> Homo sapiens

<400> 4834

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Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
 1           5           10           15
Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
      65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
      130          135          140
Leu Ser Thr
145

```

<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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60
ctgcacaaag ctttcgcccc agctgaactg gaacgcacgt accaggagat ccaggagtta
120
cagtgggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
180
cccgtgggta ttccagcacc atcccgcccc gcctcccgtt ttgagggtgt gcgctgggac
240
tacttcacgg agcagcacgc tttctcctgc gccgatggct caccctcgct cccactgcgt
300
ggggctgacc gggctgatgt ggccgatgtt ctggggacag ctctagagga gctgaaccgc
360
cgctaccacc cggccttgct gctccagaag cagcagctgg tgaatggcta ccgacgcttt
420
gatccggccc ggggtatgga atacacgctg gacttgacgc tggaggcact gacccccag
480
ggaggccgcc gggccctcac tcgcccagtg cagctgctcc ggccgctgag ccgctgggag
540
atcttgccctg tgccttatgt cactgaggcc tcacgtctca ctgtgctgct gcctctagct
600
gcggctgagc gtgacctggc ccctggcttc ttggaggcct ttgccactgc agcactggag
660
cctggtgatg ctgcggcagc cctgaccctg ctgctactgt atgagccgcy ccaggccccag
720
cgcgtaggcc atgcagatgt cttcgacact gtcaaggccc acgtggcaga gctgggagcgg
780

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cgtttccccg gtgccccggg gccatggctc agtgtgcaga cagccgcacc ctcaccactg
 840
 cgcctcatgg atctactctc caagaagcac ccgctggaca cactgttccct gctggccggg
 900
 ccagacacgg tgctcacgcc tgacttctcg aaccgctgcc gcatgcatgc catctccggc
 960
 tggcaggcct tctttcccat gcatttccaa gccttccacc cagctgtggc cccaccacaa
 1020
 gggcctgggc cccagagctc ggggcccgtg cactggccgc ttgcatcgcc aggcagccag
 1080
 cgaggcctgc ttctacaact ccgactacgt ggcagcccgt gggcgccctg gcgcagctca
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 1260
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 1320
 ctccgctccc gaaccagctc ggccatgcta ctctttgaac aggagcaggg caacagcacc
 1380
 tgacccacc cgttccccgt gggcccgtgg cattggccac accccacccc acttctcccc
 1440
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 1500
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 1560
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 1620
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 1680
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 1740
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 1800
 tggccaagtg tggaaaaaaaa aaaaaaaaaa aaaaaaaa aaaaaa
 1846

<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

Xaa His Phe Arg Ser Ala Leu Thr Ala His Pro Val Arg Asp Pro Val
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 20 25 30
 Thr Tyr Gln Glu Ile Gln Glu Leu Gln Trp Glu Ile Gln Asn Thr Ser
 35 40 45
 His Leu Ala Val Asp Gly Asp Arg Ala Ala Ala Trp Pro Val Gly Ile
 50 55 60
 Pro Ala Pro Ser Arg Pro Ala Ser Arg Phe Glu Val Leu Arg Trp Asp
 65 70 75 80
 Tyr Phe Thr Glu Gln His Ala Phe Ser Cys Ala Asp Gly Ser Pro Arg

```

      85      90      95
Cys Pro Leu Arg Gly Ala Asp Arg Ala Asp Val Ala Asp Val Leu Gly
      100      105      110
Thr Ala Leu Glu Glu Leu Asn Arg Arg Tyr His Pro Ala Leu Arg Leu
      115      120      125
Gln Lys Gln Gln Leu Val Asn Gly Tyr Arg Arg Phe Asp Pro Ala Arg
      130      135      140
Gly Met Glu Tyr Thr Leu Asp Leu Gln Leu Glu Ala Leu Thr Pro Gln
      145      150      155      160
Gly Gly Arg Arg Pro Leu Thr Arg Arg Val Gln Leu Leu Arg Pro Leu
      165      170      175
Ser Arg Val Glu Ile Leu Pro Val Pro Tyr Val Thr Glu Ala Ser Arg
      180      185      190
Leu Thr Val Leu Leu Pro Leu Ala Ala Ala Glu Arg Asp Leu Ala Pro
      195      200      205
Gly Phe Leu Glu Ala Phe Ala Thr Ala Ala Leu Glu Pro Gly Asp Ala
      210      215      220
Ala Ala Ala Leu Thr Leu Leu Leu Tyr Glu Pro Arg Gln Ala Gln
      225      230      235      240
Arg Val Ala His Ala Asp Val Phe Ala Pro Val Lys Ala His Val Ala
      245      250      255
Glu Leu Glu Arg Arg Phe Pro Gly Ala Arg Val Pro Trp Leu Ser Val
      260      265      270
Gln Thr Ala Ala Pro Ser Pro Leu Arg Leu Met Asp Leu Leu Ser Lys
      275      280      285
Lys His Pro Leu Asp Thr Leu Phe Leu Leu Ala Gly Pro Asp Thr Val
      290      295      300
Leu Thr Pro Asp Phe Leu Asn Arg Cys Arg Met His Ala Ile Ser Gly
      305      310      315      320
Trp Gln Ala Phe Phe Pro Met His Phe Gln Ala Phe His Pro Ala Val
      325      330      335
Ala Pro Pro Gln Gly Pro Gly Pro Pro Glu Leu Gly Pro
      340      345

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<210> 4837

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4837

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120
actgtaaatt atgatagtgt caattctgac aactctaagc caaagatatt taaaagtcaa
180
atagagaaca taaatttgac caatggcagc aatgggagga acacagagtc cccagctgcc
240
attcaccctt gtggaaatcc tacagtgtt gaggacgctt tggacaagat taaaagcaat
300
gaccctgaca ccacagaagt caatttgaac aacattgaga acatcacaa acagaccctt
360
acccgctttg ctgaagccct caaggacaac actgtggtga agacgttcag tctggccaac
420

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acgcatgccg acgacagtgc agccatggcc attgcagaga tgctcaaagt caatgagcac
 480
 atcaccaacg taaacgtcga gtccaacttc ataacgggaa aggggatcct ggccatcatg
 540
 agagctctcc agcacaacac ggtgctcacy gagctgcgtt tccataacca gaggcacatc
 600
 atgggcagcc aggtggaaat ggagattgtc aagctgctga aggagaacac gacgctgctg
 660
 aggctgggat accattttga actcccagga ccaagaatga gcatgacgag cattttgaca
 720
 agaaatatgg ataacacagag gcaaaaacgt ttgcaggagc aaaaacagca ggagggatac
 780
 gatggaggac ccaatcttag gaccaaagtc tggcaaagag gaacacctag cccttcccct
 840
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 900
 acgcgt
 906

<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

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Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
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Lys Glu Leu Leu Phe Arg Thr Glu Gln Glu Lys Ser Gly Val Pro His		685
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Ile Pro Lys Ile Ala Glu Lys Lys Ser Asn Arg His Ser Ile Gln His		700
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Val Pro Gly Asp Ile Glu Gln Thr Ser Gln Glu Lys Gly Ser Lys Lys		720
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Gly Gly Leu Ser Gln Ser Gln Asp Asp Ser Ile Val Gly Thr Arg His		765
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Cys Arg His Ser Leu Ala Ile Met Pro Ile Pro Gly Thr Leu Ser Ser		785
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Gln Gln Ser Cys Tyr Ile Ile Ile Ser Lys Asp Thr Thr Ala Lys Glu		830
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Val Val Phe His Ala Val His Glu Phe Gly Leu Thr Gly Ala Ser Asp		845
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<210> 4845

<211> 3286

<212> DNA

<213> Homo sapiens

<400> 4845

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<211> 626

<212> PRT

<213> Homo sapiens

<400> 4846

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Asn	Lys	Asp	Thr	Gly	His	Ser	Asn	Arg	Gln	Ser	Asp	Val	Arg	Ile	Lys
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Phe	Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val
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Lys	Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro
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Leu	Asp	Leu	His	Tyr	Met	Asn	Asn	Glu	Leu	Ser	Ile	Leu	Leu	Lys	Asn
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Gln	Asp	Asp	Leu	Asp	Lys	Ala	Ile	Asp	Ile	Leu	Asp	Arg	Ser	Ser	Ser

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Arg	Ser	Arg	His	Leu	Ser	Val	Ser	Ser	Gln	Asn	Pro	Gly	Arg	Ser	Ser															
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<210> 4847

<211> 2804

<212> DNA

<213> Homo sapiens

<400> 4847

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 4848

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<210> 4849

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4849

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<210> 4850

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4850

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Ile	Arg	Glu	Arg	Leu	Gly	Ser	Gly	Ala	Phe	Ser	Glu	Val	Val	Leu
				20				25					30	
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro
				35				40				45		
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala
				50				55			60			
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val
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Glu	Ser	Pro	Ser	His	Leu	Tyr	Leu	Ala	Met					
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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 420
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 480
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 540

cagtttttgta agattcagga aaaattagcc caattagagc ttgaaaataa ggaacttcga
 600
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 660
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 720
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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			20				25						30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
		35					40					45			
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
		50				55					60				
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
65					70					75				80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85					90						95	
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
			100					105					110		
Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
		115					120					125			
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
		130				135					140				
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
145					150					155				160	
Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
			165					170						175	
Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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<210> 4854

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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		20		25		30
Glu	Asn	Pro	Glu	Gln	Val	Ala
	35			40		45
Arg	Lys	Val	Glu	Leu	Pro	Val
	50			55		60
Trp	Val	Glu	Ser	Leu	Arg	Gly
65				70		75
Asp	Leu	His	Pro	Asp	Val	Phe
				85		90
His	Gln	Val	Ala	Met	Trp	Gln
				100		105
Lys	Thr	Lys	Thr	Arg	Ala	Glu
	115			120		125
Ala	Ala	Glu	Arg	His	Trp	Ala
	130			135		140
Ala	Leu	Ala	Arg	Arg	Arg	Cys
145				150		155
Tyr	Tyr	Tyr	Met	Leu	Pro	Met
				165		170
Ala	Leu	Thr	Val	Lys	Leu	Ala
				180		185
Leu	Glu	Leu	Pro	Thr	Gly	Asp
	195			200		205
Tyr	Arg	Arg	Trp	Gly	Asp	Ser
	210			215		220
Glu	Met	Pro	Gln	Ser	Ile	Val
225				230		235
Asn	Leu	Ile	Pro	Ala	Val	Gly
				245		250
Gln	Thr	Leu	Val	Leu	Thr	Leu
				260		265
Leu	Leu	Trp	Gln	Asp	Ser	Arg
	275			280		285
Pro	Tyr	Ser	Asp	Phe	Pro	Arg
	290			295		300
Ala	Ala	Thr	Pro	Tyr	His	Cys
305				310		

<210> 4855

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4855

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120

tttgggacaa catctacaac tgcaggttct gcattcagct tttctgcccc aactaacaca

180

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240

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 360
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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Ala	Thr	Ala	Ala	Pro	Ala	Gly	Gly	Phe	Gly	Gly	Phe	Gly	Thr	Thr	Ser
			20					25					30		
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
			35				40						45		
Thr	Thr	Gly	Leu	Phe	Gly	Gly	Thr	Gln	Asn	Lys	Gly	Phe	Gly	Phe	Gly
			50				55						60		
Thr	Gly	Phe	Gly	Thr	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly
							70				75				80
Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln
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Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
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Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
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Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln
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Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
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Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
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Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
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Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
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Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
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225

230

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<210> 4857

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 4857

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<210> 4858

<211> 269
 <212> PRT
 <213> Homo sapiens

<400> 4858

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 35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
 50           55           60
Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
 65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
 85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
 100          105          110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
 115          120          125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
 130          135          140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
 145          150          155          160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
 165          170          175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
 180          185          190
Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
 195          200          205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
 210          215          220
Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
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<210> 4859
 <211> 689
 <212> DNA
 <213> Homo sapiens

<400> 4859

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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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Trp	Thr	Leu	Asp	Leu	Glu	Pro	Arg	Gly	Pro	Val	His	Ile	His	Pro	Thr
		20						25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
		35					40				45				
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	50				55						60				
Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65				70					75					80	
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
			85					90			95				
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
		100						105					110		
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
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His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
	130				135					140					
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
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<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

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1622

<210> 4862
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 4862
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 35 40 45
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
 50 55 60
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
 65 70 75 80
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
 85 90 95
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
 100 105 110
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
 115 120 125
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
 130 135 140
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
 145 150 155 160
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
 165 170 175
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
 180 185 190
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
 195 200 205
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
 210 215 220
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
 225 230 235 240
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly
 245 250 255
 Thr Val Lys Gln
 260

<210> 4863
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 4863
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 120
 accatcaacc ctgaggacga caggatcct ggccatgctg acctgggtcct ctatatcact
 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtgc ggggcgtcac ccagctgggc
 240
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 355

<210> 4864
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4864
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 20 25 30
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr
 35 40 45
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu
 50 55 60
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly
 65 70 75 80
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly
 85 90 95
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly
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 Leu Glu His Asp Gly Ala
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<210> 4865
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 4865
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 120
 aaggccttcg ccgacagctc ttacctgctt cgccaccagc gcactcactc tggccagaag
 180
 ccctacaagt gcccacattg tggcaaggcc ttcggcgaca gctcctacct cctgcgacac
 240
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 300
 cagaactcgt ccctgcgcag ccatcagagg gtgcacaccg gtcagaggcc cttcagctgt
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 420
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 444

<210> 4866

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4866
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 20 25 30
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
 35 40 45
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
 50 55 60
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
 65 70 75 80
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
 85 90 95
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
 100 105 110
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
 115 120 125
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
 130 135 140
 Pro Phe Thr Arg
 145

<210> 4867
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 4867
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 120
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 180
 gagacagccc cagggggtgc tgctggaga cagccgggat agcttcagtc tctgacct
 240
 gacacggggt gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa
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 360
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 391

<210> 4868
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4868
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

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Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20           25           30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35           40           45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50           55           60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65           70           75           80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85           90           95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100          105          110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115          120          125

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<210> 4869

<211> 418

<212> DNA

<213> Homo sapiens

<400> 4869

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120
caggactgca cggactgcct ggggaggggt ctttggcccc cgggttcctg caggggggct
180
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240
ccccaacagc cctggagaag ggggacgttg cctgctgtgg ctgaggctgt tttcctggcc
300
tgtgagaggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaac
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<210> 4870

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4870

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Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20           25           30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35           40           45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50           55           60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65           70           75           80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

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[illegible]

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 1354

<210> 4872
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 4872
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 20 25 30
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro
 35 40 45
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala
 50 55 60
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His
 65 70 75 80
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu
 85 90

<210> 4873
 <211> 948
 <212> DNA
 <213> Homo sapiens

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 120
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 240
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa
 300
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 360
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 420
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 480
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 aacaaagtgc gatggttaaga acagaccagg gtgccggggc cttcaggtca cttggggaga
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 660
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 720

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 780
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 840
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<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
			35				40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
		50				55					60				
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65					70					75				80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
				85					90					95	
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100					105					110		
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
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<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 180
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 240
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 300
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 360
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 420
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 480

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 1255

<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
			20					25					30		
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln
		35					40					45			
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50					55					60				
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65					70					75				80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
				85					90					95	
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
			100					105					110		
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
		115					120					125			
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130					135					140				
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
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<400> 4877
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720
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1140

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1182

<210> 4878

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

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Leu	Ile	Ile	Leu	Leu	Gln	Gly	Leu	Gln	Gly	Arg	Val	Thr	Thr	Val	Asp
			20					25					30		
Leu	Arg	Asp	Glu	Ser	Val	Ala	His	Gly	Arg	Ile	Asp	Asn	Val	Asp	Ala
		35					40					45			
Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
50					55					60					
His	Gln	Val	Lys	Leu	Asp	Asp	Leu	Phe	Val	Thr	Gly	Arg	Asn	Val	Arg
65				70						75				80	
Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
				85					90					95	
Gln	Leu	Gln	Ile	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln
			100					105					110		
Gly	Arg	Trp	Glu	Phe	Pro	Pro	Lys	Lys	Leu						
		115					120								

<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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 900
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<210> 4880

<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

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 His Lys Pro Gly Leu Gly Lys Cys Pro Asp Leu Pro Gly Gly His Thr

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<210> 4881
<211> 1333
<212> DNA
<213> Homo sapiens
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4058

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 840
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 900
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<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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Arg	Glu	Ala	Thr	Gly	Val	Glu	Asn	Arg	Val	Thr	Ser	Pro	Leu	Pro	Pro
			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35				40					45				
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
	50					55				60					
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65				70					75					80	
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
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Leu	Ser	Gly	Arg												
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<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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 180
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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
		20					25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35					40						45			

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Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65          70          75          80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
      85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
      100          105          110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
      115          120          125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
      130          135          140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145          150          155          160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
      165          170          175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
      180          185          190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
      195          200          205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
      210          215          220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225          230          235          240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
      245          250          255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
      260          265          270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
      275          280          285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
      290          295          300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305          310          315          320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
      325          330          335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
      340          345          350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
      355          360          365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
      370          375          380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
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<210> 4885

<211> 489

<212> DNA

<213> Homo sapiens

<400> 4885

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<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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Asn	Pro	Met	Gln	Val	Phe	Gln	Gly	Phe	Met	Ser	Phe	Lys	Asp	Val	Ala
			20					25					30		
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
		35					40					45			
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	50					55					60				
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
65					70					75					

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 360

cagcatctat ctctattaaa tgtagaggaa ttgacaaaag aggggaaaga aagttgtag
420
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480
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<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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			20					25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
	35						40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
	50					55					60				
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75				80	
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
				85					90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
	115						120					125			
Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
	130					135					140				
Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
145					150					155				160	
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
				165					170					175	
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
			180					185					190		
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	195						200						205		
Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
	210					215					220				
Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	Gln	Pro	Thr
225					230					235				240	
Ala	Pro	Glu	Ser	Thr	Ser	Asp	Xaa	Phe	Pro	Xaa	Ala	Gly	Lys	Ser	Gln
				245					250					255	
Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
			260					265					270		
Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
	275						280					285			
Ile	Val	Gly	Met	Pro	Val	Asp	Ser	Phe	Asn	Ser	Met	Leu	Ser	Arg	Tyr

290 295 300
 Tyr Leu Thr Asp Leu Gln Val Ser Leu Ile Arg Asp Ile Arg Arg Arg
 305 310 315 320
 Gly Lys Asn Lys Val Ala Ala Gln Asn Cys Arg Lys Arg Lys Leu Asp
 325 330 335
 Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys
 340 345 350
 Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile
 355 360 365
 Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu
 370 375 380
 Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln
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<210> 4889

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4889

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<210> 4890

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4890

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20	25	30	
Arg Thr Gly Gln Pro Gln Pro Ala Pro Thr Arg Val Asn Ile Ser Arg			
35	40	45	
Pro Ser Pro Thr Leu Phe Pro Asp Ser Gln Gln Thr Asp Val Gly Ser			
50	55	60	
Arg Thr Asp Pro Phe Thr His Thr His Thr His Ser His Ser Phe Ala			
65	70	75	80
His Ile His Ser Cys Thr His Ala Met Tyr			
85	90		

<210> 4891

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 4891

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1080

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<210> 4892

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<212> PRT

<213> Homo sapiens

<400> 4892

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<213> Homo sapiens

<400> 4894

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 Lys Pro Val Ala Val Glu Gln Lys Glu Ser Lys Ser Arg Ile Cys Ala
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<211> 118
<212> PRT
<213> Homo sapiens

<400> 4900
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20	25	30	
Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser			
35	40	45	
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln			
50	55	60	
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala			
65	70	75	80
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
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<210> 4901

<211> 1520

<212> DNA

<213> Homo sapiens

<400> 4901

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960

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<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

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			20					25					30		
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35				40						45			
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	50				55					60					
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65				70					75					80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
			85					90						95	
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
			100					105					110		
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
		115				120						125			
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
	130				135						140				
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145				150					155					160	
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
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Ser	Arg	Arg	Ser	Ser	Trp	Pro	Pro								
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<210> 4903

<211> 1064

<212> DNA

<213> Homo sapiens

<400> 4903

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<210> 4904

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4904

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20          25          30
Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
35          40          45
Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

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50 55 60
 Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
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 85 90 95
 Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
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<210> 4905

<211> 615

<212> DNA

<213> Homo sapiens

<400> 4905

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<210> 4906

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4906

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 35 40 45
 Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
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<210> 4908

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4908

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Pro	Tyr	Pro	Cys	Pro	His	Gly	Asp	Arg	Leu	Leu	Pro	Pro	Ser	Arg	Pro
			20					25					30		
Leu	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Ala	Glu	Arg	Ser	Arg
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<210> 4909

<211> 1960

<212> DNA

<213> Homo sapiens

<400> 4909

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<210> 4910
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 4910

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Phe Met Pro Ile Leu Met Glu Lys Glu Glu Gly Met Leu Ser Pro
 35           40           45
Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
 50           55           60
Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65           70           75           80
Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
 85           90           95
Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
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Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
 115          120          125
Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
 130          135          140
Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
 145          150          155          160
Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
 165          170          175
Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
 180          185          190
Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
 195          200          205
Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
 210          215          220
Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
 225          230          235          240
Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
 245          250          255
Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
 260          265          270
Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
 275          280          285
Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
 290          295          300
Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
 305          310          315          320
Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
 325          330          335
Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
 340          345          350
Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
 355          360          365
Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

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370		375		380	
Phe Thr Val Ser Gly Ile	Gln Val Arg Tyr Met	Lys Ile Ile Glu Lys			
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420					

<210> 4911

<211> 1862

<212> DNA

<213> Homo sapiens

<400> 4911

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 1740
 aaggtggcag ttttcctttc ttctcattaa tttagatgag ttaaatgata acatttggaa
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 1860
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 1862

<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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Val	Lys	Arg	Asn	Phe	Leu	Glu	Ala	Leu	Lys	Ser	Asn	Asp	Phe	Gly	Lys
			20					25					30		
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
		35				40						45			
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
	50				55						60				
Trp	Leu	Pro	Ser	Tyr	Lys	Leu	Lys	Ser	Ser	Trp	Ala	Thr	Gly	Leu	His
65					70				75					80	
Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
			85					90					95		
His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
		100						105					110		
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
		115				120						125			
Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
	130				135						140				
His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu	Val
145				150					155					160	
Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
			165			170							175		
Glu	Val	Glu	His	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu

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<210> 4913
<211> 2090
<212> DNA
<213> Homo sapiens
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<400> 4913
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120
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180
cggaagatgg cggcggcggc cgggaggccg tgaggagagc ggcggtctgc agggcgggcg
240
atggcgggcg ggaggcgccc tcggacactt gcgggtcggt agggcgcgac gctggggaggc
300
atgtcggagc acgtggagcc cgcagctccg gggcccgggc ccaacggcgg cggcggcggc
360

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ccggcccccg cgcgcggggc tcgcaccccc aatctcaacc ccaaccccct catcaacgtg
420
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480
ccgcccgcct tccgcgctct cttcgagttc ttcgtgctgc tcaaggccct gtttgtgctc
540
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660
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720
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780
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840
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900
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1020
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1200
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1260
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1320
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1380
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1680
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1740
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1800
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1860
tctggagggg tcttggtagg tctgcagtga accgtcctga ggatggagtg ggggtccatg
1920
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1980

cgccctagtg ccggccggcc tcagcccggc tctgcctggt gctccctgca gtgccttctc
 2040
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 2090

<210> 4914
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 4914
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 Gly Gly Gly Gly Pro Ala Pro Ala Arg Gly Pro Arg Thr Pro Asn Leu
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 Asn Pro Asn Pro Leu Ile Asn Val Arg Asp Arg Leu Phe His Ala Leu
 35 40 45
 Phe Phe Lys Met Ala Val Thr Tyr Ser Arg Leu Phe Pro Pro Ala Phe
 50 55 60
 Arg Arg Leu Phe Glu Phe Phe Val Leu Leu Lys Ala Leu Phe Val Leu
 65 70 75 80
 Phe Val Leu Ala Tyr Ile His Ile Val Phe Ser Arg Ser Pro Ile Asn
 85 90 95
 Cys Leu Glu His Val Arg Asp Lys Trp Pro Arg Glu Gly Ile Leu Arg
 100 105 110
 Val Glu Val Arg His Asn Ser Ser Arg Ala Pro Val Phe Leu Gln Phe
 115 120 125
 Cys Asp Ser Gly Gly Arg Gly Ser Phe Pro Gly Leu Ala Val Glu Pro
 130 135 140
 Gly Ser Asn Leu Asp Met Glu Asp Glu Glu Glu Glu Leu Thr Met
 145 150 155 160
 Glu Met Phe Gly Asn Ser Ser Ile Lys Phe Glu Leu Asp Ile Glu Pro
 165 170 175
 Lys Val Phe Lys Pro Pro Ser Ser Thr Glu Ala Leu Asn Asp Ser Gln
 180 185 190
 Glu Phe Pro Phe Pro Glu Thr Pro Thr Lys Val Trp Pro Gln Asp Glu
 195 200 205
 Tyr Ile Val Glu Tyr Ser Leu Glu Tyr Gly Phe Leu Arg Leu Ser Gln
 210 215 220
 Ala Thr Arg Gln Arg Leu Ser Ile Pro Val Met Val Val Thr Leu Asp
 225 230 235 240
 Pro Thr Arg Asp Gln Cys Phe Gly Asp Arg Phe Ser Arg Leu Leu Leu
 245 250 255
 Asp Glu Phe Leu Gly Tyr Asp Asp Ile Leu Met Ser Ser Val Lys Gly
 260 265 270
 Leu Ala Glu Asn Glu Glu Asn Lys Gly Phe Leu Arg Asn Val Val Ser
 275 280 285
 Gly Glu His Tyr Arg Phe Val Ser Met Trp Met Ala Arg Thr Ser Tyr
 290 295 300
 Leu Ala Ala Phe Ala Ile Met Val Ile Phe Thr Leu Ser Val Ser Met
 305 310 315 320
 Leu Leu Arg Tyr Ser His His Gln Ile Phe Val Phe Ile Val Asp Leu
 325 330 335
 Leu Gln Met Leu Glu Met Asn Met Ala Ile Ala Phe Pro Ala Ala Pro

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<210> 4915
<211> 1157
<212> DNA
<213> Homo sapiens
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4089

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 780
 gggcctcggg gaccagtgac agccccacgc tagcagcac aggctgcccc accgtgggct
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 ccccgatctc tctctggatc accgagacct cgcaggagg gtcacaggg gcgccaggcc
 900
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 960
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 1020
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 1140
 ctctctctct ctctctc
 1157

<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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Ala	Gly	Ala	Ser	Arg	Lys	Arg	Lys	Glu	Val	Pro	Ser	Arg	Leu	Arg	Thr
			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
		35					40					45			
Arg	Gly	Pro	Arg	Gly	Pro	Ser	Ala	Ala	Pro	Arg					
	50					55									

<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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 120
 cagtctgggc gcgagagccg ccaagcgccc actccgttcc tctggtgccc cgcgccgctc
 180
 cgcccgcgcc cccgcccctc ccggcgcccc gccccgtccg gcagcggcct cgctccctcc
 240
 gatccccccc gcgcccggga cccctggccc cactgttggg ccagctcgcc gggtcgggcc
 300
 atgggccccg ccgctcgccc cgcgctgaga tcgcccgcgc cgctccgcc gccgctccg
 360
 tctccgtgc tgctgtgct gccctgctg ccgctgtggc tgggcctggc ggggcccggg
 420

gccgcggcgg acggcagcga gccggcggcc ggggcggggc ggggcggagc ccgcgccgtg
 480
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 660
 gcggcccagt tccaccagga gaataagggc agtggccgc aggcctatcc caaggccctg
 720
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 780
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 840
 ctccattatt cctccaatgt caccaagctg ttggatgcat tgctgcagag gaccagggc
 900
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 960
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 1020
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 agcagcggg agctcggagg ccagggtggac ctgtttaagc gccgcgtggt gcggagactg
 1200
 gcatccctca agacacggcg ctgccggctg agcagggcag cgcagggcct cccagatccg
 1260
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 1320
 gtggctccgg gtgctgcctt gtaagcacga gtttcaccga gactgtgtgg acccctggct
 1380
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 1440
 gggtcctcgt gcctactctg cctgctcctc acctgatgcc tctctccctg ttcttcttcc
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 1544

<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

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 20 25 30
 Trp Leu Gly Leu Ala Gly Pro Gly Ala Ala Ala Asp Gly Ser Glu Pro
 35 40 45
 Ala Ala Gly Ala Gly Arg Gly Gly Ala Arg Ala Val Arg Val Asp Val
 50 55 60
 Arg Leu Pro Arg Gln Asp Ala Leu Val Leu Glu Gly Val Arg Ile Gly

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65          70          75          80
Ser Glu Ala Asp Pro Ala Pro Leu Leu Gly Gly Arg Leu Leu Leu Met
          85          90          95
Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
          100          105          110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
          115          120          125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
          130          135          140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Ile Leu
          145          150          155
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
          165          170          175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
          180          185          190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
          195          200          205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
          210          215          220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
          225          230          235
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
          245          250          255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
          260          265          270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
          275          280          285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
          290          295          300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
          305          310          315
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
          325          330          335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
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<210> 4919

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 4919

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120

gggttctctc tcatgggggc aggcataagc ctgaccaagg tgccagctat tcaacagaaa

180

agaacgggtg cttttctaaa ccaatttgtg gtgcacactg tacagttcct caaccgcttt

240

tctacagttt gtgaggagaa actggcagac ctttcacttc gtatccaaca aattgaaaca

300

actctcaata ttttagatgc aaagttgtca tctatcccag gcctagatga tgtcacagtt

360

gaagtatctc ctttaaagt caccagtgtc acaaattggag cacatcctga agccacttca
 420
 gagcaaccac agcagaacag tacacaagac tctggactac aggaaagtga agtatcagca
 480
 gaaaatatct taactgtagc caaggatcca agatatgcca gatattctca aatgggttcaa
 540
 gtgggtgtac cagtgatggc aataagaaac aaaatgatat cagaaggact agaccagat
 600
 cttcttgaga ggccagatgc tccagtgcct gatggcgaaa gtgagaaaac tgtagaagaa
 660
 agttcagata gcgaatcttc ttttagtgat taagcttaat tttgataaga attacatatg
 720
 catgcatagg ggtacattta cattctgtaa gagattgagc ctgaactctc ttagtcataa
 780
 aaacatcaaa tggccacatg tccactacca agcttcttct atgttaaaaa aataataata
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 900
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 960
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 1020
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 tggcgacaag agtgaaactc tgtcttaaaa ataaaaagag atgcaatgag caatttttaa
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<210> 4920

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
			35				40					45			
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
			50				55				60				
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65					70				75					80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
				85					90					95	
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

			100					105				110			
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
			115					120				125			
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
			130					135				140			
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
145					150				155					160	
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
				165					170					175	
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
			180					185				190			
Ser	Asp														

<210> 4921

<211> 1272

<212> DNA

<213> Homo sapiens

<400> 4921

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120
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180
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240
tttgtggaac agaaatgtga agtttttgat gatgaagaag aaagcaaatt gacctataca
300
gagattcatc aggaatacaa agaactagtt gaaaagctgt tagaagggtta cctcaaagaa
360
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420
acatcacagg ccattttgca acctgtgttg gcagcagaag attttactat ctttaaagca
480
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540
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600
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720
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780
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840
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900
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960
cgagaacact atctcaagca gaagagagat aagttgatgt ccatgagaaa ggatatgagg
1020

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actaaacaga tacaaaatat ggagcagaaa ggaaaaccca ctggggaggt agaggaaatg
 1080
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 1260
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 1272

<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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Ala	Gly	Leu	Leu	Arg	Gly	Pro	Asp	Trp	Ser	Ile	Pro	Ile	Leu	Asp	Phe
		20						25					30		
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys	Leu
		35					40					45			
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys	Leu
	50					55					60				
Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe	Gln
65				70					75					80	
Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala	Ile
			85						90					95	
Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala	Met
		100						105					110		
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile	Ile
	115						120					125			
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser	Asp
	130					135					140				
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu	Val
145				150					155					160	
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys	Arg
			165					170						175	
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His	Ser
		180						185					190		
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His	Phe
	195						200					205			
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Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu	Gly
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Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg	Lys
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Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg				
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Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro				
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Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser				
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Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile				
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<211> 374

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<213> Homo sapiens

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Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr
      50           55           60
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Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Asn Phe Ser
      85           90           95
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu
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<213> Homo sapiens

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Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	Glu	Ala	Leu	Lys	Ala	Phe	Val
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Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
				85					90					95	
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Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
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	225	230		235	240
Arg	Ser Arg Met Leu Ala Thr Leu Phe Lys Asp Glu Arg Cys Gln Gln				
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Leu	Ala Ala Tyr Gly Ile Leu Glu Lys Met Tyr Leu Asp Arg Ile Ile				
	260	265		270	
Arg	Gly Asn Gln Leu Gln Glu Phe Ala Ala Met Leu Met Pro His Gln				
	275	280		285	
Lys	Ala Thr Thr Ala Asp Gly Ser Ser Ile Leu Asp Arg Ala Val Ile				
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Glu	His Asn Leu Leu Ser Ala Ser Lys Leu Tyr Asn Asn Ile Thr Phe				
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Gln	Ile Asp Gly Ile Val His Phe Glu Thr Arg Glu Ala Leu Pro Thr				
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Trp	Asp Lys Gln Ile Gln Ser Leu Cys Phe Gln Val Asn Asn Leu Leu				
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Val	Gln	Gln	Phe	Gly	Tyr	Gln	Arg	Ala	Ser	Asp	Asp	Gly	Lys	Leu	
		35					40				45				
Thr	Asp	Pro	Ser	Lys	Thr	Ser	Asn	Thr	Ile	Arg	Val	Phe	Leu	Pro	Asn
	50					55					60				
Lys	Gln	Arg	Thr	Val	Val	Asn	Val	Arg	Asn	Gly	Met	Ser	Leu	His	Asp
65				70						75				80	
Cys	Leu	Met	Lys	Ala	Leu	Lys	Val	Arg	Gly	Leu	Gln	Pro	Glu	Cys	Cys
			85						90					95	
Ala	Val	Phe	Arg	Leu	Leu	His	Glu	His	Lys	Gly	Lys	Lys	Ala	Arg	Leu
			100					105					110		
Asp	Trp	Asn	Thr	Asp	Ala	Ala	Ser	Leu	Ile	Gly	Glu	Glu	Leu	Gln	Val
	115						120					125			
Asp	Phe	Leu	Asp	His	Val	Pro	Leu	Thr	Thr	His	Asn	Phe	Ala	Arg	Lys
	130				135						140				
Thr	Phe	Leu	Lys	Leu	Ala	Phe	Cys	Asp	Ile	Cys	Gln	Lys	Phe	Leu	Leu
145				150					155					160	
Asn	Gly	Phe	Arg	Cys	Gln	Thr	Cys	Gly	Tyr	Lys	Phe	His	Glu	His	Cys
			165						170					175	
Ser	Thr	Lys	Val	Pro	Thr	Met	Cys	Val	Asp	Trp	Ser	Asn	Ile	Arg	Gln
		180					185					190			
Leu	Leu	Leu	Phe	Pro	Asn	Ser	Thr	Ile	Gly	Asp	Ser	Gly	Val	Pro	Ala
	195					200						205			
Leu	Pro	Ser	Leu	Thr	Met	Arg	Arg	Met	Arg	Glu	Ser	Val	Ser	Arg	Met
	210					215					220				
Pro	Val	Ser	Ser	Gln	His	Arg	Tyr	Ser	Thr	Pro	His	Ala	Phe	Thr	Phe

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225          230          235          240
Asn Thr Ser Ser Pro Ser Ser Glu Gly Ser Leu Ser Gln Arg Gln Arg
          245          250          255
Ser Thr Ser Thr Pro Asn Val His Met Val Ser Thr Thr Leu Pro Val
          260          265          270
Asp Ser Arg Met Ile Glu Asp Ala Ile Arg Ser His Ser Glu Ser Ala
          275          280          285
Ser Pro Ser Ala Leu Ser Ser Ser Pro Asn Asn Leu Ser Pro Thr Gly
          290          295          300
Trp Ser Gln Pro Lys Thr Pro Val Pro Ala Gln Arg Glu Arg Ala Pro
305          310          315          320
Val Ser Gly Thr Gln Glu Lys Asn Lys Ile Arg Pro Arg Gly Gln Arg
          325          330          335
Asp Ser Ser Tyr Tyr Trp Glu Ile Glu Ala Ser Glu Val Met Leu Ser
          340          345          350
Thr Arg Ile Gly Ser Gly Ser Phe Gly Thr Val Tyr Lys Gly Lys Trp
          355          360          365
His Gly Asp Val Ala Val Lys Ile Leu Lys Val Val Asp Pro Thr Pro
          370          375          380
Glu Gln Phe Gln Ala Phe Arg Asn Glu Val Ala Val Leu Arg Lys Thr
385          390          395          400
Arg His Val Asn Ile Leu Leu Phe Met Gly Tyr Met Thr Lys Asp Asn
          405          410          415
Leu Ala Ile Val Thr Gln Trp Cys Glu Gly Ser Ser Leu Tyr Lys His
          420          425          430
Leu His Val Gln Glu Thr Lys Phe Gln Met Phe Gln Leu Ile Asp Ile
          435          440          445
Ala Arg Gln Thr Ala Gln Gly Met Asp Tyr Leu His Ala Lys Asn Ile
          450          455          460
Ile His Arg Asp Met Lys Ser Asn Asn Ile Phe Leu His Glu Gly Leu
465          470          475          480
Thr Val Lys Ile Gly Asp Phe Gly Leu Ala Thr Val Lys Ser Arg Trp
          485          490          495
Ser Gly Ser Gln Val Glu Gln Pro Thr Gly Ser Val Leu Trp Met
          500          505          510
Ala Pro Glu Val Ile Arg Met Gln Asp Asn Asn Pro Phe Ser Phe Gln
          515          520          525
Ser Asp Val Tyr Ser Tyr Gly Ile Val Leu Tyr Glu Leu Met Thr Gly
          530          535          540
Glu Leu Pro Tyr Ser His Ile Asn Asn Arg Asp Gln Ile Ile Phe Met
545          550          555          560
Val Gly Arg Gly Tyr Ala Ser Pro Asp Leu Ser Lys Leu Tyr Lys Asn
          565          570          575
Cys Pro Lys Ala Met Lys Arg Leu Val Ala Asp Cys Val Lys Lys Val
          580          585          590
Lys Glu Glu Arg Pro Leu Phe Pro Gln Ile Leu Ser Ser Ile Glu Leu
          595          600          605
Leu Gln His Ser Leu Pro Lys Ile Asn Arg Ser Ala Ser Glu Pro Ser
          610          615          620
Leu His Arg Ala Ala His Thr Glu Asp Ile Asn Ala Cys Thr Leu Thr
625          630          635          640
Thr Ser Pro Arg Leu Pro Val Phe
          645

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<210> 4931
 <211> 261
 <212> DNA
 <213> Homo sapiens

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 120
 taccgtatg cccatctctc agctgaggac tttaatatct atggccatgg gggccgccag
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 ttctggtggg tcagctcctg cttcttcttc ctgctcggag gagcttctac gtgtatgcgg
 240
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 261

<210> 4932
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 4932
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 Lys Arg Val Leu Ala Ile Thr Thr Val Leu Ser Pro Ala Leu Ser Val
 20 25 30
 Thr Gln Gly Thr Arg Lys Ile Leu Tyr Pro Tyr Ala His Leu Ser Ala
 35 40 45
 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val
 50 55 60
 Ser Ser Cys Phe Phe Phe Leu Leu Gly Gly Ala Ser Thr Cys Met Arg
 65 70 75 80
 Ala Ser Trp His Arg Ser Thr
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<210> 4933
 <211> 975
 <212> DNA
 <213> Homo sapiens

<400> 4933
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 120
 ccaagggtg ggcattggcg caccgctggg tcaccctctc tcgtcttcct ccacaggtgt
 180
 gcttcccgca cagctgcagc catgggtctt gaggaccacg gcgcccagaa cccagctgt
 240
 aaaatcatga cgtttcgccc aaccatggaa gaatttaaag acttcaacaa atacgtggcc
 300
 tacatagagt cgcagggagc ccaccgggcg ggcctggcca agatcatccc cccgaaggag
 360

tggaagccgc gccagacgta tgatgacatc gacgacgtgg tgatccccgc gcccatccag
 420
 cagggtggtga cgggccagtc gggcctcttc acgcagtaca atatccagaa gaaggccatg
 480
 acagtgggcg agtaccgccg cctggccaac agcgagaagt actgtacccc gcggcaccag
 540
 gactttgacg accttgaacg caaatactgg aagaacctca cctttgtctc cccgatctac
 600
 ggggctgaca tcagcggctc tttgtatgat gacgtaagta tgaggctccg gggaagaaca
 660
 gggaccagct tcctggtggg tgggtggtggg agggccctga acgggactct gccttggcag
 720
 atgaagcttc caggcaggca aggttaaccc cctcgcccag gctctggatg cgggcctcgc
 780
 cctgtggtga cgaaagagga agccaggctt tctctgattt ttgcagggcc cctcctgcct
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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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Thr	Phe	Arg	Pro	Thr	Met	Glu	Glu	Phe	Lys	Asp	Phe	Asn	Lys	Tyr	Val
			20					25					30		
Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
			35				40					45			
Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
			50			55					60				
Asp	Val	Val	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Val	Val	Thr	Gly	Gln	Ser
65					70					75				80	
Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
				85					90					95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100					105					110		
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
		115				120						125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
		130				135					140				
Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
145					150					155				160	
Gly	Gly	Gly	Arg	Ala	Leu	Asn	Gly	Thr	Leu	Pro	Trp	Gln	Met	Lys	Leu
				165				170						175	
Pro	Gly	Arg	Gln	Gly											
				180											

<210> 4935
<211> 1668
<212> DNA
<213> Homo sapiens

<400> 4935
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120
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180
gtagactgcc gagtaatagc cagaggccac gggcacaagt cctgggtcag tgtgttagcg
240
tttgaccctt ataccactag tgtagaagaa ggtgacccta tggagttag tggcagcgat
300
gaggacttcc aagaccttct tcattttggc gagatcgagc aaatagtaca cagtccaggc
360
tctccaaacg gaactctaca gacagccgcc ccgagtgtca cgtatcggtt tggttccgtg
420
ggccaggaca cacagctctg tttatgggac cttacagaag atatcctttt ccctcaccaa
480
cccctctcaa gagcaaggac acacacaaat gtcataatg ccacgagtcc tctgtctgga
540
agcaatggga acagtgttac aacacccggg aactctgtgc cgctcctct gccacggtcc
600
aacagccttc cacattcagc agtctcaa atgctggcagca aaagcagtgt catggacggg
660
gccattgctt ctgggggtcag caaatttgca acactttcac tacatgaccg gaaggagagg
720
caccacgaga aagatcacia gcgaaatcat agcatgggac acatttctag caagagcagt
780
gacaaactga atctagttac caaaaccaa acggaccctg ctaaaactct gggaaacgccc
840
ctgtgtcctc gaatggaaga tgttcccttg ttagagccgc tgatatgtaa aaagatagca
900
catgagagac tgactgtact aatatttctt gaagactgta tagtactgc ttgtcaggag
960
ggatttatct gcacatgggg aaggcctggt aaagtggtaa gttttaatcc ttaatgctgc
1020
accagatcta gaacttgaat aggtagtgc ttttttcttt ttcgtgggag ggggtggggtg
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1260
agtcccaagg ttagcgctcc tgtattagac tatttcaatt ttaggaaaat catgaccatg
1320
tggggaaaca atgacttta aatgctgaaa ttaaaattta tgctttaact ggaatatttt
1380
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1440

ccatgaattg tcatttatag tccaattttt tatcttaatc ataaaatggt taggaatcta
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 tgaaatttaa ctttaggaac aaaacgttta gcagggttga ttgatattat ttttacattg
 1560
 ttctggcaat ccacagaaag agaagagcct taatttttaa aacccatttt agtcatttta
 1620
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<210> 4936

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4936

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			20					25					30		
Gly	Leu	Leu	Cys	Val	Cys	Trp	Ser	Pro	Asp	Gly	Lys	Tyr	Ile	Val	Thr
		35					40					45			
Gly	Gly	Glu	Asp	Asp	Leu	Val	Thr	Val	Trp	Ser	Phe	Val	Asp	Cys	Arg
	50					55				60					
Val	Ile	Ala	Arg	Gly	His	Gly	His	Lys	Ser	Trp	Val	Ser	Val	Val	Ala
65					70					75					80
Phe	Asp	Pro	Tyr	Thr	Thr	Ser	Val	Glu	Glu	Gly	Asp	Pro	Met	Glu	Phe
				85						90				95	
Ser	Gly	Ser	Asp	Glu	Asp	Phe	Gln	Asp	Leu	Leu	His	Phe	Gly	Glu	Ile
			100					105					110		
Glu	Gln	Ile	Val	His	Ser	Pro	Gly	Ser	Pro	Asn	Gly	Thr	Leu	Gln	Thr
		115					120					125			
Ala	Ala	Pro	Ser	Val	Thr	Tyr	Arg	Phe	Gly	Ser	Val	Gly	Gln	Asp	Thr
	130						135				140				
Gln	Leu	Cys	Leu	Trp	Asp	Leu	Thr	Glu	Asp	Ile	Leu	Phe	Pro	His	Gln
145					150					155					160
Pro	Leu	Ser	Arg	Ala	Arg	Thr	His	Thr	Asn	Val	Met	Asn	Ala	Thr	Ser
				165					170					175	
Pro	Pro	Ala	Gly	Ser	Asn	Gly	Asn	Ser	Val	Thr	Thr	Pro	Gly	Asn	Ser
			180					185					190		
Val	Pro	Pro	Pro	Leu	Pro	Arg	Ser	Asn	Ser	Leu	Pro	His	Ser	Ala	Val
		195					200					205			
Ser	Asn	Ala	Gly	Ser	Lys	Ser	Ser	Val	Met	Asp	Gly	Ala	Ile	Ala	Ser
	210					215					220				
Gly	Val	Ser	Lys	Phe	Ala	Thr	Leu	Ser	Leu	His	Asp	Arg	Lys	Glu	Arg
225					230					235					240
His	His	Glu	Lys	Asp	His	Lys	Arg	Asn	His	Ser	Met	Gly	His	Ile	Ser
				245					250				255		
Ser	Lys	Ser	Ser	Asp	Lys	Leu	Asn	Leu	Val	Thr	Lys	Thr	Lys	Thr	Asp
			260					265					270		
Pro	Ala	Lys	Thr	Leu	Gly	Thr	Pro	Leu	Cys	Pro	Arg	Met	Glu	Asp	Val
		275					280					285			
Pro	Leu	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu
	290					295					300				
Thr	Val	Leu	Ile	Phe	Leu	Glu	Asp	Cys	Ile	Val	Thr	Ala	Cys	Gln	Glu

85 90 95
 Trp Ala Leu Tyr Lys Gln Arg Glu Ala Pro Glu Leu Val
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<210> 4939
 <211> 730
 <212> DNA
 <213> Homo sapiens

<400> 4939
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 120
 tcggcctcta ccggccctcc ccaaggctct cctccctgg actcaaaagc ctctacttgg
 180
 ctgcctctgc cagtcacctc ttctctgtct gagccctcca gaccaaattc ttgcccacct
 240
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 300
 ccttccaaag cttcaccagc gccagcagcg ctgatgtgtg ggaccacatc acccccata
 360
 atccagcag ccacagagcc agtctgtgca tcctcacggt ccgggaggcc cacagccacc
 420
 gcttcagacc tccagcctct tctggatgtt ctgtcagcct ccgcctctc atcctcagtt
 480
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 730

<210> 4940
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 4940
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 20 25 30
 Ala Asp Ser Ser Ala Ser Thr Arg Pro Pro Gln Gly Pro Pro Ser Leu
 35 40 45
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser
 50 55 60
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala
 65 70 75 80
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

	85		90		95
Ser Lys Ala Ser	Pro Ala Pro	Ala Leu Met	Cys Gly Thr	Thr Ser	
	100	105	110		
Pro Pro Ile Ile	Pro Ala Ala	Thr Glu Pro	Val Cys Ala	Ser Ser Arg	
	115	120	125		
Ser Gly Arg Pro	Thr Ala Thr	Ala Cys Ser	Leu Gln Pro	Leu Leu Asp	
	130	135	140		
Val Leu Ser Ala	Ser Ala Ser	Ser Ser Ser	Val Ser Leu	Ala	
145	150	155			

<210> 4941

<211> 1718

<212> DNA

<213> Homo sapiens

<400> 4941

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480
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1140

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 1320
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 1620
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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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Ile	Gln	Val	His	Tyr	His	Ile	Gly	Leu	Asn	Leu	Pro	Gly	Cys	Val	Ala
			20					25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
		50				55				60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70					75				80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
				85					90					95	
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
			100					105					110		
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
		115					120					125			
Thr	Ala	Phe	Phe	Val	Glu	Leu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile
		130				135					140				
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
145					150					155				160	
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
				165					170					175	
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
				180					185				190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
		195				200						205			
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met	Asp

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      210              215              220
Ser Ala Val Tyr Val Glu Met Leu Gln Ile Leu Leu Pro His Phe Ser
225              230              235              240
Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys
      245              250              255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260              265              270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275              280              285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290              295              300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
305              310              315              320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325              330              335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340              345              350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355              360              365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370              375              380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
385              390              395              400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405              410              415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420              425              430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
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Met Ser Leu Lys Lys
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<210> 4943

<211> 1020

<212> DNA

<213> Homo sapiens

<400> 4943

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420

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<210> 4944

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25					30		
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40					45			
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
		50				55					60				
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65				70					75					80	
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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1792

<210> 4946
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 4946
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 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe
 35 40 45
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser
 50 55 60
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg
 65 70 75 80
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn
 85 90 95
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg
 100 105 110
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn
 115 120 125
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp
 130 135 140
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala
 145 150 155 160
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser
 165 170 175
 Leu Ala Gly Cys Cys Leu Ser Ser Val Pro Arg Ser Ser Thr Ser Trp
 180 185 190
 Ser Leu Ser Arg Leu
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<210> 4947
 <211> 2060
 <212> DNA
 <213> Homo sapiens

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 420

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 540
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 2040

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2060

<210> 4948
<211> 127
<212> PRT
<213> Homo sapiens

<400> 4948
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Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn
35 40 45
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu
50 55 60
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg
65 70 75 80
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala
85 90 95
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly
100 105 110
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg
115 120 125

<210> 4949
<211> 1259
<212> DNA
<213> Homo sapiens

<400> 4949
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180
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420
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 780
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<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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		20						25					30		
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser
	35					40						45			
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly	Leu
	50					55					60				
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu
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Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp
				85					90					95	
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro
		100						105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg
	115						120					125			
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly
	130					135					140				
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr
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Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr
		180						185					190		
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu	Gly
	195						200					205			
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Ser

210	215	220
Ala Ala Gln Phe Cys	Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu	
225	230	235
Cys Asp Ser Ser Cys	Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys	240
	245	250
Lys Glu Cys Ile Ser	Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp	255
	260	265
Val Asp Glu Cys Ser	Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu	270
	275	280
Asn Cys Tyr Asn Thr	Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly	285
	290	295
Phe Glu Glu Xaa Gly	Arg Cys Leu Cys Ala Ala Gly Arg Gly	300
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<210> 4951

<211> 1835

<212> DNA

<213> Homo sapiens

<400> 4951

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1020

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<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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			20					25					30		
Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser	Asp
		35					40					45			
Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser	Glu
	50					55					60				
Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	Ser	His	Ser	Pro	Pro
65					70				75					80	
Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Glu	Asp	Tyr	Glu	Ser	Glu
			85				90						95		
Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val	Pro
			100				105					110			
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Gly	Leu	Ser	Ser	Ala	Ala	Ala	Ser	Met	Phe	Gly	Arg	Met	Gly	Ser	Glu
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          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

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<210> 4953

<211> 355

<212> DNA

<213> Homo sapiens

<400> 4953

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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgagcc agcggggacc
180
taccgcgcaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtccctctcg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
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<210> 4954

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4954

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Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

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<210> 4955

<211> 364

<212> DNA

<213> Homo sapiens

<400> 4955

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120
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180
gggcacgcat ggcacacctg ggggacatct gagggcaccc ccaccacta ttcctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccctc actctccctc
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360
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364

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<210> 4956

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4956

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Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1              5              10              15
Gln Gly Gly Arg Gly His Gln Pro Pro Pro Phe Cys Asp Ile Arg Thr
      20              25              30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35              40              45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50              55              60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65              70              75              80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85              90              95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
      100              105              110
Gln Gly

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<210> 4957

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4957

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180
aaccacagc acctcctgca gtcctggagg gaaaaggagc agtaacatga agtgtctgaa
240
gatccatttc acctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga
300
ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat
360
caataatatg tcagtcaact gcttgtcaga gacacttagc tgctgacagg tcctcataac
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480
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540
actggaactt ccaaggacct ggtaaacacg cctccactg ggtgatgaga ttaaggtgat
600
ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag
660
cgataacaga tattcatcag gaattcgggc cgtacttcg cgcgctctcc tgcaccgccg
720
ccgccatctc gctcaggagc tcctccacaa ccgccggcaa ctacggccat cgcgccgcag
780
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<210> 4958

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4958

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Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala
1           5           10          15
Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr
20          25          30
Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
35          40          45
Arg Ser Ser
50

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<210> 4959

<211> 449

<212> DNA

<213> Homo sapiens

<400> 4959

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 120
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<210> 4960

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4960

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Lys	Val	Lys	Trp	Arg	Pro	Ser	Glu	Ser	Ser	Lys	Gly	Leu	Pro	Tyr	His
		20					25					30			
Ile	Trp	Arg	Ile	Arg	Cys	Phe	Ser	Pro	Ile	Ser	Gln	Gly	Trp	Lys	Leu
		35				40					45				
Ala	Ser	Ile	Leu	Arg	Trp	Pro	Glu	Ala	Leu	Pro	Leu	Arg	Gln	Ile	Met
		50				55					60				
Thr	Pro	Asp	Ala	Ser	Ser	Pro	Leu	Tyr	Pro	Cys	His	Met	Glu	Gly	Pro
65				70					75				80		
Lys	His	Leu	Ala	Leu	Asn	Cys	Lys	Trp	Lys	Pro	Pro	Gln	Pro	Leu	His
			85					90					95		
Gln	Pro	Pro	Ala	Lys	Glu	Thr	Thr	Thr	Ile	Cys	Ile	Pro	Ser	Leu	
			100					105					110		
Asp	Thr	Arg													
		115													

<210> 4961

<211> 4737

<212> DNA

<213> Homo sapiens

<400> 4961

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 120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc
180
accaggaga tgcgcaacgt cagtataggc atgggcagca gtgacgagtg gtctgatgtt
240
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc
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4737

<210> 4962

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

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Pro Leu Gly Asp	Tyr Gly Val Gly	Ser Lys Asn Ser	Lys Arg Ala Arg
35	40	45	
Glu Lys Arg Asp	Ser Arg Asn Met	Glu Val Gln Val	Thr Gln Glu Met
50	55	60	
Arg Asn Val Ser	Ile Gly Met Gly	Ser Ser Asp Glu	Trp Ser Asp Val
65	70	75	80
Gln Asp Ile Ile	Asp Ser Thr Pro	Glu Leu Asp Met	Cys Pro Glu Thr
85	90	95	
Arg Leu Asp Arg	Thr Gly Ser Ser	Pro Thr Gln Gly	Ile Val Asn Lys
100	105	110	
Ala Phe Gly Ile	Asn Thr Asp Ser	Leu Tyr His Glu	Leu Ser Thr Ala
115	120	125	
Gly Ser Glu Val	Ile Gly Asp Val	Asp Glu Gly Ala	Asp Leu Leu Gly
130	135	140	
Glu Phe Ser Gly	Met Gly Lys Glu	Val Gly Asn Leu	Leu Leu Glu Asn
145	150	155	160
Ser Gln Leu Leu	Glu Thr Lys Asn	Ala Leu Asn Val	Val Lys Asn Asp
165	170	175	
Leu Ile Ala Lys	Val Asp Gln Leu	Ser Gly Glu Gln	Glu Val Leu Arg
180	185	190	
Gly Glu Leu Glu	Ala Ala Lys Gln	Ala Lys Val Lys	Leu Glu Asn Arg
195	200	205	
Ile Lys Glu Leu	Glu Glu Glu Leu	Lys Arg Val Lys	Ser Glu Ala Ile
210	215	220	
Ile Ala Arg Arg	Glu Pro Lys Glu	Glu Ala Glu Asp	Val Ser Ser Tyr
225	230	235	240
Leu Cys Thr Glu	Ser Asp Lys Ile	Pro Met Ala Gln	Arg Arg Arg Phe
245	250	255	
Thr Arg Val Glu	Met Ala Arg Val	Leu Met Glu Arg	Asn Gln Tyr Lys
260	265	270	
Glu Arg Leu Met	Glu Leu Gln Glu	Ala Val Arg Trp	Thr Glu Met Ile
275	280	285	
Arg Ala Ser Arg	Glu His Pro Ser	Val Gln Glu Lys	Lys Lys Ser Thr
290	295	300	
Ile Trp Gln Phe	Phe Ser Arg Leu	Phe Ser Ser Ser	Ser Ser Pro Pro
305	310	315	320
Pro Ala Lys Arg	Pro Tyr Pro Ser	Val Asn Ile His	Tyr Lys Ser Pro
325	330	335	
Thr Thr Ala Gly	Phe Ser Gln Arg	Arg Asn His Ala	Met Cys Pro Ile
340	345	350	
Ser Ala Gly Ser	Arg Pro Leu Glu	Phe Phe Pro Asp	Asp Asp Cys Thr
355	360	365	
Ser Ser Ala Arg	Arg Glu Gln Lys	Arg Glu Gln Tyr	Arg Gln Val Arg
370	375	380	
Glu His Val Arg	Asn Asp Asp Gly	Arg Leu Gln Ala	Cys Gly Trp Ser
385	390	395	400
Leu Pro Ala Lys	Tyr Lys Gln Leu	Ser Pro Asn Gly	Gly Gln Glu Asp
405	410	415	
Thr Arg Met Lys	Asn Val Pro Val	Pro Val Tyr Cys	Arg Pro Leu Val
420	425	430	
Glu Lys Asp Pro	Thr Met Lys Leu	Trp Cys Ala Ala	Gly Val Asn Leu

435 440 445
 Ser Gly Trp Arg Pro Asn Glu Asp Asp Ala Gly Asn Gly Val Lys Pro
 450 455 460
 Ala Pro Gly Arg Asp Pro Leu Thr Cys Asp Arg Glu Gly Asp Gly Glu
 465 470 475 480
 Pro Lys Ser Ala His Ala Ser Pro Glu Lys Lys Lys Ala Lys Glu Leu
 485 490 495
 Pro Glu Met Asp Ala Thr Ser Ser Arg Val Trp Ile Leu Thr Ser Thr
 500 505 510
 Leu Thr Thr Ser Lys Val Val Ile Ile Asp Ala Asn Gln Pro Gly Thr
 515 520 525
 Val Val Asp Gln Phe Thr Val Cys Asn Ala His Val Leu Cys Ile Ser
 530 535 540
 Ser Ile Pro Ala Ala Ser Asp Ser Asp Tyr Pro Pro Gly Glu Met Phe
 545 550 555 560
 Leu Asp Ser Asp Val Asn Pro Glu Asp Pro Gly Ala Asp Gly Val Leu
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 Ala Gly Ile Thr Leu Val Gly Cys Ala Thr Arg Cys Asn Val Pro Arg
 580 585 590
 Ser Asn Cys Ser Ser Arg Gly Asp Thr Pro Val Leu Asp Lys Gly Gln
 595 600 605
 Gly Glu Val Ala Thr Ile Ala Asn Gly Lys Val Asn Pro Ser Gln Ser
 610 615 620
 Thr Glu Glu Ala Thr Glu Ala Thr Glu Val Pro Asp Pro Gly Pro Ser
 625 630 635 640
 Glu Pro Glu Thr Ala Thr Leu Arg Pro Gly Pro Leu Thr Glu His Val
 645 650 655
 Phe Thr Asp Pro Ala Pro Thr Pro Ser Ser Gly Pro Gln Pro Gly Ser
 660 665 670
 Glu Asn Gly Pro Glu Pro Asp Ser Ser Ser Thr Arg Pro Glu Pro Glu
 675 680 685
 Pro Ser Gly Asp Pro Thr Gly Ala Gly Ser Ser Ala Ala Pro Thr Met
 690 695 700
 Trp Leu Gly Ala Gln Asn Gly Trp Leu Tyr Val His Ser Ala Val Ala
 705 710 715 720
 Asn Trp Lys Lys Cys Leu His Ser Ile Lys Leu Lys Asp Ser Val Leu
 725 730 735
 Ser Leu Val His Val Lys Gly Arg Val Leu Val Ala Leu Ala Asp Gly
 740 745 750
 Thr Leu Ala Ile Phe His Arg Gly Glu Asp Gly Gln Trp Asp Leu Ser
 755 760 765
 Asn Tyr His Leu Met Asp Leu Gly His Pro His His Ser Ile Arg Cys
 770 775 780
 Met Ala Val Val Tyr Asp Arg Val Trp Cys Gly Tyr Lys Asn Lys Val
 785 790 795 800
 His Val Ile Gln Pro Lys Thr Met Gln Ile Glu Lys Ser Phe Asp Ala
 805 810 815
 His Pro Arg Arg Glu Ser Gln Val Arg Gln Leu Ala Trp Ile Gly Asp
 820 825 830
 Gly Val Trp Val Ser Ile Arg Leu Asp Ser Thr Leu Arg Leu Tyr His
 835 840 845
 Ala His Thr His Gln His Leu Gln Asp Val Asp Ile Glu Pro Tyr Val
 850 855 860
 Ser Lys Met Leu Gly Thr Gly Lys Leu Gly Phe Ser Phe Val Arg Ile

865 870 875 880
 Thr Ala Leu Leu Val Ala Gly Ser Arg Leu Trp Val Gly Thr Gly Asn
 885 890 895
 Gly Val Val Ile Ser Ile Pro Leu Thr Glu Thr Val Val Leu His Arg
 900 905 910
 Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly
 915 920 925
 Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
 930 935 940
 Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln
 945 950 955 960
 Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val
 965 970 975
 Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp
 980 985 990
 Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu
 995 1000 1005
 Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr
 1010 1015 1020
 Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly
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<210> 4963

<211> 1575

<212> DNA

<213> Homo sapiens

<400> 4963

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<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
	50					55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
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Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
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Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
		100					105					110			
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

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145	150	155
Pro Ala Lys Ile Ala Glu Val Met Glu Glu Leu Lys Ala Val Glu Val		
165	170	175
Phe Leu Lys Ser Asp Ser Leu Cys Leu Met Glu Gly Arg Arg Phe Arg		
180	185	190
Ala Gln Pro Thr Leu Pro Ser Ala His Leu Leu Ala Met His Ile Gln		
195	200	205
Gln Leu Glu Thr Gly Gly Phe Thr Met Thr Asn Gly Ala His Arg Trp		
210	215	220
Ser Lys Leu Arg Asn Ile Ala Lys Val Val Ser Gln Val His Ala Phe		
225	230	235
Gln Glu Asn Pro Tyr Thr Phe Ser Pro Asp Pro Lys Leu Gln Ser Tyr		
245	250	255
Leu Lys Gln Arg Ile Ala Arg Phe Ser Gly Ala Asp Ile Ser Thr Leu		
260	265	270
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<211> 1474

<212> DNA

<213> Homo sapiens

<400> 4965

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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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			20					25					30		
Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
		35					40					45			
Asn	Asn	Ile	Ala	Asn	Leu	Lys	Ile	Ser	Leu	Leu	Asn	Lys	Asp	Lys	Ile
		50				55					60				
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65					70					75				80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
			85					90					95		
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
			100					105					110		
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
		115					120					125			
Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
		130				135					140				
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
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<210> 4970

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4970

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Pro Phe Leu Pro Gly Val Phe Gly Tyr Ala Val Asn Pro Gln Ala Ala
      50           55           60
Pro Pro Ala Pro Pro Thr Pro Pro Pro Pro Thr Leu Pro Pro Pro Ile
      65           70           75           80
Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys
      85           90           95
Gly Asp Val Gly Xaa Asn Pro Gly Ala Gln Ser Pro Phe His Gln Met
      100          105          110
Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys
      115          120          125
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<210> 4971

<211> 2939

<212> DNA

<213> Homo sapiens

<400> 4971

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<211> 558

<212> PRT

<213> Homo sapiens

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			20					25					30		
Lys	Thr	Gln	Ala	Glu	Ala	Val	Ala	Glu	Ala	Glu	Leu	Lys	Thr	Glu	Ser
			35				40					45			
Val	Thr	Gln	Ala	Lys	Ala	Gly	Asp	Gly	Ala	Met	Thr	Arg	Thr	His	Thr
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Val	Thr	Tyr	Arg	Glu	Ala	Met	Ala	Val	Thr	Arg	Glu	Val	Ile	Lys	Val
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Glu	Asp	Thr	Thr	Lys	Thr	Arg	Val	Met	Val	Glu	Thr	Lys	Thr	Lys	Pro
			85					90					95		
Leu	Ala	Glu	Arg	Ser	Ile	Val	Pro	Gln	Thr	Lys	Ser	Lys	Ala	Met	Pro
			100				105						110		
Met	Ser	Arg	Val	Ser	Thr	Val	Thr	Lys	Ser	Glu	Val	Lys	Val	Val	Ala
			115				120					125			
Val	Ile	Glu	Ala	Asn	Ile	Arg	Ser	Tyr	Ala	Lys	Ser	His	Asp	Lys	Ala
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Glu Pro Lys Ser Gly Glu Ser Tyr Ile His Gln Val Cys Lys Gly Ile
385                390                395                400
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<212> DNA

<213> Homo sapiens

<400> 4973

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 Gly Thr Arg Ile Ile Glu Val Ser Gly Gln Lys Ile Lys Leu Gln Ile
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 Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ala Val Thr Arg Ser Tyr
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 Tyr Arg Gly Ala Ala Gly Ala Leu Met Val Tyr Asp Ile Thr Arg Arg
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 Ser Thr Tyr Asn His Leu Ser Ser Trp Leu Thr Asp Ala Arg Asn Leu
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 Glu Ala Gln Arg Asp Val Thr Tyr Glu Glu Ala Lys Gln Phe Ala Glu
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 Glu Asn Gly Leu Leu Phe Leu Glu Ala Ser Ala Lys Thr Gly Glu Asn
 145 150 155 160
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<213> Homo sapiens

<400> 4976

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Pro	Thr	Leu	Gln	Thr	Asp	Leu	Leu	Pro	Lys	Met	Lys	Gly	Lys	Lys	Asn
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Val	Gln	His	Gln	Val	Ser	Glu	Gly	Leu	Ser	Ala	Leu	Lys	Glu	Glu	Cys
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<211> 3309

<212> DNA

<213> Homo sapiens

<400> 4977

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 4978

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Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
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Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
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Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
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Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
			100					105					110		
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

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 465 470 475 480
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 485 490 495
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Gln	Ile	Leu	Tyr	Lys	Arg	Leu	Tyr	Leu	Pro	Gly	Glu	Ser	Leu	Thr	Phe																							
															660											665											670	
Met	Cys	Tyr	Glu	Gly	Phe	Glu	Leu	Met	Gly	Glu	Val	Thr	Ile	Arg	Cys																							
															675											680											685	
Ile	Leu	Gly	Gln	Pro	Ser	His	Trp	Asn	Gly	Pro	Leu	Pro	Val	Cys	Lys																							
															690											695											700	
Val	Asn	Gln	Asp	Ser	Phe	Glu	His	Ala	Leu	Glu	Ala	Glu	Ala	Ala	Ala																							
705																710											715											720
Glu	Thr	Ser	Leu	Glu	Gly	Gly	Asn	Met	Ala	Leu	Ala	Ile	Phe	Ile	Pro																							
															725											730											735	
Val	Leu	Ile	Ile	Ser	Leu	Leu	Leu	Gly	Gly	Ala	Tyr	Ile	Tyr	Ile	Thr																							
															740											745											750	
Arg	Cys	Arg	Tyr	Tyr	Ser	Asn	Leu	Arg	Leu	Pro	Leu	Met	Tyr	Ser	His																							
															755											760											765	
Pro	Tyr	Ser	Gln	Ile	Thr	Val	Glu	Thr	Glu	Phe	Asp	Asn	Pro	Ile	Tyr																							
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<210> 4979

<211> 1865

<212> DNA

<213> Homo sapiens

<400> 4979

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360

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480

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 1860
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<210> 4980

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4980

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 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn
 35 40 45
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys
 50 55 60
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr
 65 70 75 80
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val
 85 90 95
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala
 100 105 110
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln
 115 120 125
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu
 130 135 140
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp
 145 150 155 160
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys
 165 170 175
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser
 180 185 190
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly
 195 200 205
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro
 210 215 220
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys
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 Glu Met Thr Ser Pro Gly Leu Thr Pro Ser
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<210> 4981

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 4981

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 240
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1902

<210> 4982

<211> 73
 <212> PRT
 <213> Homo sapiens

<400> 4982
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 20 25 30
 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Leu Ser
 35 40 45
 Ser Trp Asp Tyr Arg Cys Ser Pro Pro His Pro Ala Asn Phe Cys Ile
 50 55 60
 Phe Ser Arg Asp Gly Val Ser Pro Cys
 65 70

<210> 4983
 <211> 1418
 <212> DNA
 <213> Homo sapiens

<400> 4983
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 120
 catgaaattc tggagcttat tattgaaaaa ctactcaagt tggatgtgaa tgcattcccg
 180
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 240
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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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			20					25					30		
Gly	Ser	Phe	Leu	Ala	Arg	Ala	Lys	Phe	Ile	Pro	Leu	Ile	Thr	Val	Lys
		35					40					45			
Ser	Cys	Leu	Asp	Leu	Leu	Val	Asn	Trp	Leu	His	Ile	Tyr	Leu	Asn	Asn
	50					55					60				
Gln	Asp	Ser	Gly	Thr	Lys	Ala	Phe	Cys	Asp	Val	Ala	Leu	His	Gly	Pro
65					70					75					80
Phe	Tyr	Ser	Ala	Cys	Gln	Ala	Val	Phe	Tyr	Thr	Phe	Val	Phe	Arg	His
			85						90					95	
Lys	Gln	Leu	Leu	Ser	Gly	Asn	Leu	Lys	Glu	Gly	Leu	Gln	Tyr	Leu	Gln
			100					105					110		
Ser	Leu	Asn	Phe	Glu	Arg	Ile	Val	Met	Ser	Gln	Leu	Asn	Pro	Leu	Lys
		115					120					125			
Ile	Cys	Leu	Pro	Ser	Val	Val	Asn	Phe	Phe	Ala	Ala	Ile	Thr	Asn	Lys
	130						135					140			
Tyr	Gln	Leu	Val	Phe	Cys	Tyr	Thr	Ile	Ile	Glu	Arg	Asn	Asn	Arg	Gln
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Met	Leu	Pro	Val	Ile	Arg	Ser	Thr	Ala	Gly	Gly	Asp	Ser	Val	Gln	Thr
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Cys	Thr	Asn	Pro	Leu	Asp	Thr	Phe	Phe	Pro	Phe	Asp	Pro	Cys	Val	Leu
			180					185					190		
Lys	Arg	Ser	Lys	Lys	Phe	Ile	Asp	Pro	Ile	Tyr	Gln	Val	Trp	Glu	Asp
		195					200					205			
Met	Ser	Ala	Glu	Glu	Leu	Gln	Glu	Phe	Lys	Lys	Pro	Met	Lys	Lys	Asp
	210					215						220			
Ile	Val	Glu	Asp	Glu	Asp	Asp	Asp	Phe	Leu	Lys	Gly	Glu	Ile	Pro	Gln
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245

250

255

<210> 4985

<211> 5695

<212> DNA

<213> Homo sapiens

<400> 4985

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